

April 22, 2013

Dear President Obama and Secretary Kerry,

As Nebraska Sandhills natives and lifelong neighbors, we are writing to you to inform you that Nebraska citizens and landowners oppose the proposed Keystone XL tarsands pipeline and oppose the pipeline's proposed route through our state. This export pipeline is neither in Nebraska's nor in our national interest. Contrary to statements made by our governor, the people of Nebraska have not received fair treatment in our state process. Our requests for unbiased information at both the state and federal level continue to be ignored. We call on you to deny the permit for this unnecessary export pipeline that will risk our land, water, and livelihoods while enriching private, foreign corporations at our expense.

The Nebraska Department of Environmental Quality (NDEQ) used a map that shrunk the Sandhills to give political cover to TransCanada's risky route. Even TransCanada's own maps submitted to the US State Department show the real region of the Sandhills and the pipeline "re-route" still crosses between 70-94 miles of this fragile soil and still crosses just as many miles of the Aquifer.

We call on the State Department to conduct the following studies by scientists and economic experts that have zero ties to TransCanada or the oil and gas industry:

- 1) **Spill Study:** Worst-case scenario spill analysis on the Ogallala Aquifer, Platte and Niobrara rivers, Verdigre Watershed and families wells must be conducted. An unbiased study was conducted and peer-reviewed by Dr. Stansbury but yet was ridiculed and dismissed by a former TransCanada employee in the US State Dept. review. Utilizing Dr. Stansbury spill model as well as a new and unbiased review is requested. At a minimum, a spill in the amount of tarsands listed in TransCanada's draft Emergency Response Plan should be studied which is 32,265 barrels. Only a study of roughly 1,000 barrels has been conducted to date and only on the Aquifer, not the water sources that feed into our major cities and individual families water supplies. Dr. Woldt, Stansbury and Gates have all repeatedly stated they are willing to assist the State Department and their concerns are attached in the Appendix.
- 2) **Economic Risk Study:** Economic impact analysis on family farms and ranches must be conducted. We know from the recent MI and AR tarsands spills families homes were bought by the oil companies because of the pollution. We know land values go down when an oil spill happens. We know some mortgage companies are now saying they will not loan money to operations that have unconventional energy projects on the land. While the State Department and the Nebraska DEQ studies show the economic benefits of the pipeline, they do not give a detailed economic risk study on property and local communities after a spill.
- 3) **Landowner Contract Impacts:** Ultimately real people – landowners along the route – will bear the risks and liabilities associated with the existence of the tarsands and chemical pipeline running underneath and through their land and

water. These risks and liabilities will be perpetual and forever, according to TransCanada's contract with the landowners, even though the project has a useful life of 50 years or less. No federal, state, or local entities of any kind have studied the impacts upon landowners and localities through analysis of the proposed Easement Agreement TransCanada demands landowners sign. The Easement Agreement is the sole contract defining rights and responsibilities of TransCanada, its successors, and the landowners. Without detailed review of exactly what liabilities, risks, and costs TransCanada is placing upon the landowners a thoughtful determination of the full risks of this proposed project cannot be made.

- 4) **Proper Sandhills Map:** The map of the Sandhills being used to determine if the route avoids this sensitive area is not adequate. If the soil of the Sandhills is too fragile for a maximum capacity pipeline, then the soil map used to route the pipeline should reflect these fragile soils and the pipeline should avoid them rather than an arbitrary map found that simply shrinks the Sandhills rather than avoid the region and the fragile and corrosive soils. The 1-90 alternative route avoids the Sandhills and the Aquifer and should be studied as a true alternative.
- 5) **Safety:** Pipeline safety must be a focus of more studies in this review. A 47-page review of TransCanada's emergency response plan and overall safety concerns, titled "*The Failure of the DSEIS to Adequately Analyze TransCanada's Oil Pollution Act Facility Response Plan*," is attached in Appendix G and written by expert Paul Blackburn. Whistleblowers in the United States and in Canada provided clear documentation on technical issues in the past and currently on TransCanada projects including Keystone 1. We understand whistleblowers retained documents that were submitted to PHMSA that outlined serious technical problems that should be addressed before any permitting process on Keystone XL is completed. Just because TransCanada says they will build the safest pipeline does not mean it will be state-of-the-art "safe." Previous incidents on Keystone 1, like PHMSA shutting down the line because of the risk to life or the over 14 spills and leaks in less than one year, have proven they in fact do not have the safest pipelines ever built. Additionally, one of the whistleblowers brought forward allegations that TransCanada was withholding crucial evidence that show there are construction risks beyond what has been presented to the State Department. We understand when TransCanada had to shut their line down in October 2012 one of the people who reviewed the problem said the pipe looked like rats ate thru the pipe. Without adequate studies on safety and knowing TransCanada had not provided even the first responders along Keystone 1 in Nebraska adequate training or response equipment. We have major concerns around safety.

The route proposed by TransCanada, approved by Gov. Heineman and being reviewed by the US State Department is unacceptable to Nebraskans for the following reasons:

- The proposed Nebraska Reroute does not avoid the Sandhills and still crosses the High Plains Aquifer, including the Ogallala Group. The current TransCanada- and NDEQ-defined Sandhills are an inaccurate portrayal of soil and groundwater conditions along the proposed route (See Appendices A-E).
- Impacts on aquifers from a leak or spill would be virtually immitigable. Although TransCanada claims that these spills would be “localized,” no studies have been conducted on a major-sized or worst-case-scenario accident in the Ogallala aquifer. “Localized” is a relative term that means little to landowners, citizens and communities whose drinking water would be impacted greatly by even a pinhole-sized leak from a pipeline of this capacity.
- The proposed Nebraska Reroute crosses many areas of fragile soils in Northern Nebraska (See Appendix B).
  - The reroute crosses 94 miles of the NDEQ-defined Sandhills (before they found a new map of the Sandhills that shrunk the region), without including Keya Paha County and the Nebraska Entry Point.
    - The previous (denied) route crossed 92 miles of the NDEQ/TransCanada Sandhills without Keya Paha County and the Nebraska Entry Point.
  - The reroute crosses 109 miles of the NDEQ-defined Sandhills, when including Keya Paha County and the Nebraska Entry Point.
    - The previous (denied) route crossed 110 miles of the NDEQ/TransCanada-defined Sandhills when including Keya Paha County and the Nebraska Entry Point.
- Agricultural operations affected by the construction will be permanently damaged, with the most drastic effects seen on irrigation systems and cattle grazing systems. There is no state requirement that TransCanada compensate farmers and ranchers for economic damages, and easements with landowners contain no such safeguards against economic damages as a result of future problems with the pipeline.
- The economic benefits advertised by TransCanada do not match independent research and analysis, nor do TransCanada’s advertised employment figures match the actual numbers submitted by TransCanada to the State Department. This project will only create 35 permanent jobs nationally, but will affect the livelihood of hundreds of family farms and ranches in Nebraska alone.
- The steel used to make the pipe is of unknown origin, and the pipe itself is imported from Welspun, an Indian company. None of the steel in the pipe is American-made, and the pipe is not manufactured in the USA. It is coated in a new factory in Arkansas. TransCanada admitted in a letter to Rep. Waxman that they did not know the “source” of the raw steel. This is not true. TransCanada

must know this source and in numerous articles from the companies involved we can trace the source of the raw steel to India (and Russia).

- Annual local property taxes will be at their highest value for the first full year of valuation only. After that, those tax revenues will depreciate over a seven-year period, leaving the pipeline untaxed and generating no revenue for the remainder of the useful life of the pipeline, which will be over 50 years according to TransCanada. The pipeline is also left in the ground and only to be removed at the landowners' expense.
- Construction and operation of the proposed Keystone Export pipeline, due to the lack of mitigation and commitments from TransCanada place Nebraska's agriculture economy, drinking water, and natural resources at serious risk.
- Throughout NDEQ's evaluation process, the concerns of Nebraskans were ignored and many of our questions remain unanswered. NDEQ and TransCanada have not implemented any suggestions made by those who would be most affected and whose property and livelihoods would be most at risk. Our Governor, our Senators, and a majority of our House members have instead chosen to side with a foreign corporation against the best interest of Nebraska citizens.
- TransCanada has never released an Emergency Response plan, including the MSDS for pipeline contents, to local first responders or landowners for the Keystone 1 route in Nebraska. Vital information about the contents of the pipeline has been withheld from first responders. In the event of a spill, emergency personnel and health care providers would not have the knowledge necessary to do their jobs.
- TransCanada would have no financial responsibility beyond an inadequate insurance policy in the event of a major spill or leak associated with the Keystone Export pipeline. Because diluted bitumen is not classified as oil, TransCanada does not pay into the Oil Spill Liability Trust fund, which is used to cover cleanup costs. TransCanada will be using American taxpayers to subsidize their cleanup costs.
- TransCanada's advertised, not actual, \$200 million in third-party liability insurance to cover cleanup costs is inadequate for a major spill. Cleanup of major spills, such as the one in the Kalamazoo watershed in Michigan, can cost almost a billion dollars and still be inadequate. We have no proof this \$200 million insurance policy is in place and in fact TransCanada told some in our state they are no longer providing that because they are now "avoiding the Sandhills."

### **History of the Bad Actor TransCanada, the Bad Route and the Bad Maps**

In 2011, due to significant citizen pressure, Nebraska Gov. Dave Heineman called a special session of our state unicameral legislature to address siting and routing issues of the proposed pipeline. Prior to that, Gov. Heineman, as well as Sen. Johanns, Sen. Nelson, and various other Nebraska lawmakers had gone on the public record opposing any route that would cross the Ogallala aquifer and the Nebraska Sandhills region. During that time (the final quarter of 2011), TransCanada spent \$529,099 in lobbying and legal expenses<sup>1</sup> trying to influence our legislature against passing laws in the best interest of the health, safety, property rights, and economic well-being of citizens of our state and landowners along the pipeline route.

Despite TransCanada's efforts to the contrary, our legislature passed and our governor signed into law LB1 and LB4, which adopted the Major Oil Pipeline Siting Act (MOPSA) and provided for state participation in a federal supplemental environmental impact statement review process for oil pipelines, respectively. Part of the regulations outlined by MOPSA established a state process by which all future pipeline applications would be reviewed by Nebraska's Public Service Commission (PSC).

Following the passing of LB1 and LB 4, landowners immediately went to Nebraska Legislature Speaker Flood's office to gain clarity on how the Sandhills would be defined. TransCanada Vice President Robert Jones happened to be in Speaker Flood's office as well, and surprisingly everyone was shuffled into a conference room. Speaker Flood suggested the landowners find some common ground with Robert Jones concerning the Sandhills. Landowners suggested that in order for the route to be outside the Sandhills the Nebraska entry point would need to be moved. Robert Jones shook his head and said, "We will not move the entry point." Landowners went on to explain that as long as the entry remained the same that the route would still be in the Sandhills. Speaker Flood reiterated Robert Jones's statement that the entry point could not change. Landowners then suggested running the pipeline eastward in South Dakota to Keystone I, explaining that this was the only way to keep the route out of the Sandhills, porous soils, and high water tables.

Following the Special Legislative Session and the promise of an open and transparent process, landowners and citizens began contacting the NDEQ on a weekly basis to understand the process and steps that would take place to define the Sandhills. NDEQ Director Brian McManus told landowners the first week of December that the NDEQ was still working on getting their team together. The following week, McManus said that they had just assembled the team and would not commit to meeting. Landowners followed up the third week of December asking again to meet with the NDEQ and provide input on the Sandhills. Eventually the calls from the landowners started going to voicemail, and were unreturned. On December 29, 2011, the NDEQ defined the Sandhills, using an EPA ecoregion map, one that even the map creators say was never intended to be used for pipeline routing. One day later, the NDEQ notified landowners that they would be willing to meet with them on January 4, 2012.

During the meeting the NDEQ told landowners that it was easier to get tarsands out of the aquifer than crude oil, even though there had not been any studies on cleaning up

tarsands in the aquifer. NDEQ also told landowners that they had not heard about the tarsands spill in Kalamazoo River. The NDEQ skirted the question when asked if they had met with TransCanada prior to defining the Sandhills. At the end of the meeting, the NDEQ told landowners that they would not change the boundary of the Sandhills.

After the meeting with the NDEQ, it was evident that the landowners had done more research on soil types, water tables, topography assessments, and tarsands than the NDEQ had done. More obvious was the reason the NDEQ did not want to meet with landowners: the ecoregions map was part of the deal with TransCanada and the Unicameral to go around a pre-determined, shrunken version of the Sandhills. Explaining why TransCanada had helicopters flying over north central Nebraska in early December, this is how TransCanada determined whether the ecoregions map would give them the opportunity to sneak through the Sandhills using the same entry point. In the end, TransCanada agreed to go around the Sandhills because they, not a Nebraska process, defined the area using the ecoregions map. The NDEQ contacted the landowners only after TransCanada defined their own version of the Sandhills so that they would not have to consider the landowners' evidence, research, soil samples, map variations, and input.

To follow the chains of command and in an effort to have someone with authority halt the use of the ecoregions map as a definition of the Sandhills, landowners began flooding the Governor's office with calls. Governor Heineman eventually agreed to meet with landowners on February 2, 2012. Sometime during the thirty days between the meeting with the NDEQ and Governor Heineman, the NDEQ revised the "Environment by Region" maps on their website. The Environment by Region previously named "Sandhills" was changed to "North-Central Nebraska" (see appendix A).

The objective of the meeting with the Governor was to show that the area the NDEQ had depicted as the Sandhills was inaccurate. Landowner research proved that no route through the State of Nebraska could simultaneously use the existing entry point and also avoid the Sandhills. Upon hearing the meeting objective, Governor Heineman slammed his fist on the table and said, "You mean to tell me that you are saying that the Nebraska Department of Environmental Quality did not do their job and define the Sandhills." Stunned by this angst, landowners proceeded to support their position and explained the inadequacies of using an ecoregion map to protect the Sandhills. They explained that an ecoregion is comprised of five different characteristics and all of these characteristics make up an ecoregion. If you want to protect a characteristic, you should use a map of that characteristic. The landowners then backed their position with soil sample data showing the sandy porous soils that exist both within the NDEQ-defined Sandhills and outside this boundary in addition to multiple maps showing the aquifer and aquifer depths (See Appendices E and F). The meeting took a few turns, derailing the thirty-minute meeting into a ninety-minute meeting. At one point, the Governor said, "The National Guard is at my disposal if I need it." At the end of the meeting, the Governor suggested that the landowners recruit additional input from "other scientists," submit the information presented during the NDEQ public comment period and report to the press as well. He also explained that we were in a "time-out

period” in which no one was doing anything because no one knew what to do. In addition, he suggested that the landowners meet with Speaker Flood regarding the ecoregions map being he was the one involved in brokering the deal. During the meeting with Speaker Flood, he admitted that TransCanada presented a map during the Special Legislative Session and that is how the negotiations were made to go around the Sandhills. Speaker Flood agreed with the landowner’s objective and the inaccuracies of using an ecoregion map to define the Sandhills, but said he was not a scientist.

Throughout this process, it became clear to Nebraskans that TransCanada, not the Nebraska Legislative body or the NDEQ, had determined the boundaries of the Sandhills through closed-door meetings with a small group of Nebraska unicameral senators. One such meeting occurred before the 2011 Special Session and included TransCanada representatives Alex Pourbaix, Robert Jones and TransCanada lawyers as well as Senators Kate Sullivan, Annette Dubas, and Speaker Mike Flood. No representatives of Nebraska landowners or other groups and stakeholders were allowed into that meeting or any others. One outcome of these meetings was the intimidation of Nebraska lawmakers, leading them to believe the state had no authority to move the entry point of the pipeline route, a mistaken belief that was confirmed to be false during a February 2013 meeting between Nebraskans and Keri-Ann Jones in which she confirmed that states do in fact have jurisdiction over entry points and that those points can be moved.

When TransCanada’s Presidential Permit was denied in January 2012, the process established by LB4 was not “on hold,” as our governor has indicated. With denial of the permit, the LB4 process was **by law, in fact and statute, no longer applicable** to the proposed Keystone project. Under Nebraska law, any new application for a pipeline project through Nebraska would fall under the LB1-established MOPSA and would progress through the avenues of the PSC regulatory process that involved citizen participation in the rulemaking process. At the time of TransCanada’s reapplication for a new permit, the Nebraska PSC process had already begun according to the requirements of MOPSA, with public comment periods, public hearings, and public participation already taking place.

To avoid being governed by the outcome of the PSC process, TransCanada once again enlisted their allies in our state legislature’s Natural Resources committee to draft and approve new legislation, LB1161, which took the already existing and underway process of pipeline siting approval away from the PSC and gave it to the Nebraska Department of Environmental Quality (NDEQ). Not only that, but LB1161 gave ultimate approval of the pipeline route to one person, the Governor of Nebraska, who by that time had made multiple public statements that he wanted to see the pipeline built as quickly as possible. Despite a petition opposing LB1161 that gathered 1,767 signatures, the Nebraska Unicameral passed the ill-advised bill amidst a flurry of last-minute amendments. Due to its clear violation of due process and citizens’ rights, LB1161 was immediately challenged (*Thompson v. Heineman*, 2012) in the Lincoln, Nebraska Lancaster District Court as unconstitutional on six (6) counts.

When the NDEQ process was announced, landowners and citizens immediately wanted to know the new proposed route, the process by which it would be evaluated, and the rules and standards by which that process would be governed. After multiple attempts by landowners, citizens, non-profit groups and the media to gain more information from NDEQ, no clear rules or standards on how the pipeline route would be released to the public. In fact, there were no clear rules or standards. The NDEQ's evaluation of the proposed route was merely a compilation of TransCanada-provided information given to them by HDR, a TransCanada contractor.

Citizens took it upon themselves to review the NDEQ's route evaluation, and submitted a **74-page report** to the NDEQ hearing in Albion on December 6, 2012. That report's major findings were as follows:

*Overall, the NDEQ review failed to accomplish its main goal, which was to route the pipeline away from the Sandhills, a unique area of our state and country that is more vulnerable to contamination because of the relationship between sandy soil and the water table.*

*Governor Heineman in [his request to President Obama to deny the pipeline permit](#) demanded the pipeline avoid the Ogallala Aquifer, the backbone to our agricultural economy.*

*And yet, the new route TransCanada gave our state to review still recklessly crosses the Sandhills, sandy soil and the Ogallala Aquifer. This route is still risky and is still unacceptable to citizens and landowners who would be living with this tarsands pipeline for generations if this route is approved by our state and if the pipeline permit to cross the international border is approved by President Obama.*

*The NDEQ failed to review the entire route of the pipeline through Nebraska and instead just reviewed the rerouted portion, which by definition is an incomplete review. We can only hope that the US State Department will now look at reviewing the entire Nebraska route and how the entire pipeline route risks our country's land and water.*

*A major concern is the clear conflict of interest in choosing HDR as the contractor to prepare the NDEQ route review report. We discuss this in great detail in section 1.78 of this Citizen's Review. HDR is a consultant on a joint project sponsored by [TransCanada and Exxon Mobil](#)<sup>iii</sup> as well as numerous other ties to tarsands and TransCanada.*

*Additionally, HDR is relying on biased information from companies like the Perryman Group for the economic study of the pipeline. The Perryman Group was hired by the American Petroleum Institute and TransCanada to prepare this one-sided economic view of the project. If studies from biased entities such as the Perryman Group and Consumer Energy Alliance are going to be used in this critical process, then it is only fair that reports from the nonprofit and academic*

*fields NOT tied to the oil industry are also used.*

*The NDEQ Report incorrectly refers to the substance to be transported by the Keystone XL export pipeline as “crude oil.” This is an incorrect referral, as the substance to be transported by the pipe will be diluted bitumen or other bitumen-derived substances, as described in the Draft DEQ Report in Chapter 6.*

*Furthermore, because no Material Safety Data Sheets (MSDS) or specific ingredients/chemicals/compounds lists have been released to the public about the exact substances to be transported, NDEQ has incomplete knowledge about this massive 36-inch pipeline and its impact on the natural resources of Nebraska. Therefore, NDEQ cannot at this time make an accurate assessment of the environmental, economic, social and cultural impact of a proposed route. The Emergency Response and Oil Spill Response plans are outdated (contract with subcontractor expired per contract in the report). Calls made to listed first responders on TransCanada’s Keystone 1 line revealed that the plans are not in place properly, and emergency personnel are not trained.*

*The EPA’s “Ecoregions Map” used to define the Sandhills is inadequate and is inconsistent with other maps, including the USGS map used by TransCanada in its application to the State Department and shown as part of the official Keystone XL Environmental Impact Study (EIS).*

*In fact, one of the Ecoregions Map creators [James Omernik](#)<sup>iii</sup> made it clear that the Ecoregions map was never intended to be a source for pipeline siting but was intended to be used for general ecosystem management. Omernik told Inside Climate, a news organization that is following the pipeline closely, “If you're only looking at the hydrologic characteristics, that wouldn't be the same as the Sandhills boundary, if people are interested in a specific [factor], then they need to look at that specifically.”*

*Additionally, a DEQ staff member John Bender, also told Inside Climate that it is up to TransCanada to “[come up with something that's as far away from \[the Sandhills\]](#)<sup>iv</sup> as possible while still meeting their needs.” Hugging the Sandhills is hardly “far away” from this fragile part of our state. If “far away from the Sandhills” is what the DEQ thought they were going to review, they should demand TransCanada submit a route that is indeed far away from the Sandhills.*

*TransCanada told our state that it was “[impossible](#)” to move the pipeline out of the Sandhills but continues to avoid giving a clear reason why they simply will not move the pipeline next to the Keystone 1 route.*

*Rather than go back and forth on what is or is not the Sandhills, the DEQ should rely on science and basic common sense--study the actual sandy soils and water levels that are in direct route of the pipeline and avoid those that are at higher risk of contamination.*

*During the past three years of listening to TransCanada, we have noticed blanket and general statements like “This will be the safest pipeline ever built”, “We will pay for all clean up costs” and “Your land will be back to normal once our pipeline is in the ground.” We also hear a lot about the “57 Special Conditions” that TransCanada is following. However, as we have learned with just about everything TransCanada says, once you peel back the curtain you see what is really happening. [All but 12 of the 57 Special Conditions](#)<sup>v</sup> are already federal laws TransCanada has to follow.*

*In this time of extreme drought where every ounce of water has to be conserved, we are concerned with the amount of water that TransCanada requires for construction. We know through a FOIA document request that with just one part of Hydrostatic Test Discharge that TransCanada used **over 14 million gallons of water** from a “well” which was not identified in the paperwork on file with the DEQ. TransCanada had to get a permit from DEQ to put that water back into the ground. We have no idea if testing before and after for any contamination took place.*

*Regarding mitigation measures, no matter what measures are agreed to in this planning stage, there is no state-level oversight and no consequences (e.g. fines, legal recourse, etc) mentioned for not following the Construction, Mitigation and Reclamation Plan that TransCanada/Keystone has given the State of Nebraska.*

*TransCanada/Keystone can write the most meticulous details on mitigation and can run the most convincing ads, but there is no way a landowner can be sure that these measures and promises will be carried out.*

*Specifically:*

- There is absolutely no accountability for TransCanada/Keystone to follow their mitigation measures.*
- There are no fines and there are no penalties if the mitigation is not done according to the plan that TransCanada/Keystone has submitted.*
- Much of the mitigation work seems as though it is being done by subcontractors which raises the question if TransCanada is still responsible and liable for the work of the subcontractors. Or are the pages and pages of contractor commitment forms and engineer certification forms just a way for TransCanada/Keystone to avoid responsibility similar to the way TransCanada avoided responsibility of when their subcontracted land agents were bullying landowners?*
- We have lots of “shoulds” and “mays” in this report. We need more “will” and “required.”*

*As citizens and landowners who could live with this pipeline for generations--if the President grants a permit--we believe the NDEQ analysis of this risky route is*

*inadequate. The NDEQ must seek input from experts not tied to TransCanada, the oil industry or those that have investments in tarsands companies and developments. Lastly, the route must be changed to avoid the Sandhills, sandy soil and the Ogallala Aquifer. 75% of Nebraskans agree about the need to re-route the pipeline to avoid these sensitive natural resources. The PR spin by TransCanada or creative map development/justification by the NDEQ is not acceptable for the magnitude of the risks that go along with TransCanada's export pipeline.*

Regardless of these concerns, NDEQ published a minimally-revised version of their Draft Report in final form on January 3, 2013, which the governor approved, along with the proposed route through the Sandhills and the Ogallala aquifer, on January 22, 2013.

Prior to that, in September of 2012 the State of Nebraska attempted to have the citizen lawsuit *Thompson v. Heineman* challenging LB1161 thrown out, but in January 2013 the judge issued a ruling that upheld five (5) of the six counts, and continued proceedings, which are underway and pending<sup>vi</sup>. On March 18, 2013, Judge Stacy ruled to allow citizens to amend the lawsuit. The state of Nebraska lost its motion to prevent landowners from adding requests for injunctive relief and lost its motion to block landowners from adding more claims of unconstitutional acts. The ruling in favor of the landowners made it clear that if the citizens win after the full trial--which will happen in summer 2013--then any route approved for Nebraska, including anything done by the US State Department, will be nullified.

As stated in the Citizens' Review of the NDEQ Final Evaluation Report, TransCanada has provided no assurances to the State of Nebraska that they will implement adequate mitigation measures. They have ignored citizens' requests to test domestic and livestock wells within 1000 feet of the centerline of the route, they have failed to provide emergency responders with the information they need to do their jobs, and they have no legal or financial responsibility to protect or compensate landowners and citizens in the event of a major spill causing economic damages.

We hereby, in accordance to our constitutional rights, call on you to deny the permit for the Keystone Export pipeline, which would violate the rights of Nebraska citizens and is contrary to the national interest. We refuse to risk our land, water and economy for the profits of a foreign corporation that mistreats landowners and disregards our concerns. We request that the Nebraska Evaluation be removed from the Department of State's Supplemental Environmental Impact Statement and be replaced with an independent evaluation that takes into consideration the many concerns of Nebraskans whose lives will be directly affected by this pipeline.

We appreciate your sustained attention to this matter in recent years. Please do not turn your back on us now.

Sincerely,

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Raymond, NE 68428

Amy Ann Schaffer, on behalf of Nebraska Easement Action Team (NEAT)  
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Louisville, Nebraska 68037

John Hansen, on behalf of Nebraska Farmers Union  
1305 Plum Street  
Lincoln, Nebraska 68502

Jane Kleeb, on behalf of Bold Nebraska  
1246 Washington St.  
Lincoln, Nebraska 68502

Mary Pipher, on behalf of Lincoln 350.org

Jim Knopik, on behalf of North Star Neighbors Co-Op  
17896 State Hwy 22  
Fullerton, NE 68638

**Note to reader:** Amy and Ben wrote the majority of this submission to the US State Department. The work they do every day with landowners is the backbone of this submission and we hope this time our concerns and requests are addressed not with contractors who work with TransCanada but rather independent scientists and experts who do not have financial gain as a motivator to push this project forward.

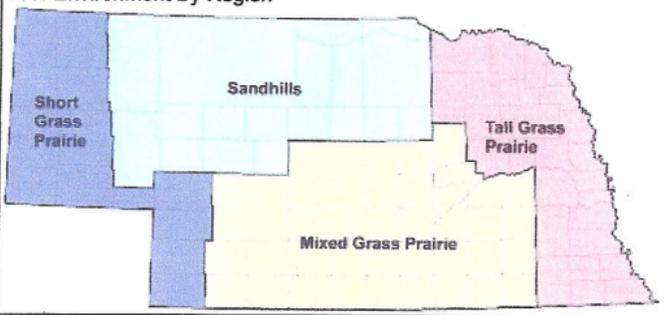
**Appendix A:  
NDEQ Environment Regions before and after negotiations with TransCanada**

**Nebraska DEQ Map with definitions of Sandhills *prior* to TransCanada's definition of the Sandhills:**

**Your Environment**

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This portion of NDEQ's web site is designed to provide the public with information about the environment across the state, as well as to more specific information about the region you live in. You can click on any section of the map below to find more specifics about that region. Or, select any of the "Focus on..." topics at left below, to find out more information about Nebraska's air quality, water quality and waste management issues.

<p><b>Your Environment By Topic</b></p> <p><a href="#">Focus on Air Quality</a> <a href="#">Air Quality Report</a></p> <p><a href="#">Focus on Water Quality</a> <a href="#">Water Quality Monitoring Report</a> <a href="#">Groundwater Report</a></p> <p><a href="#">Focus on Land Quality/Waste</a> <a href="#">Contaminated Sites</a> <a href="#">Waste Disposal</a> <a href="#">Recycling Directory</a></p>	<p><b>Your Environment By Region</b></p>  <p>Short Grass Prairie</p> <p>Sandhills</p> <p>Tall Grass Prairie</p> <p>Mixed Grass Prairie</p>	
Select any "Focus on..." topic above to find more information about Air, Water and Land Quality	Select any region above to find out more information about the environment in that area.	
<a href="#">Regional Topics</a>	<a href="#">What Can I Do?</a>	<a href="#">Questions and Answers</a>

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[www.DEQ.state.NE.US Home Page](#)      [Security, Privacy & Accessibility Policy](#)      [Nebraska.gov](#)

**Nebraska DEQ Map with definitions of Sandhills *after* TransCanada's definition of the Sandhills:**

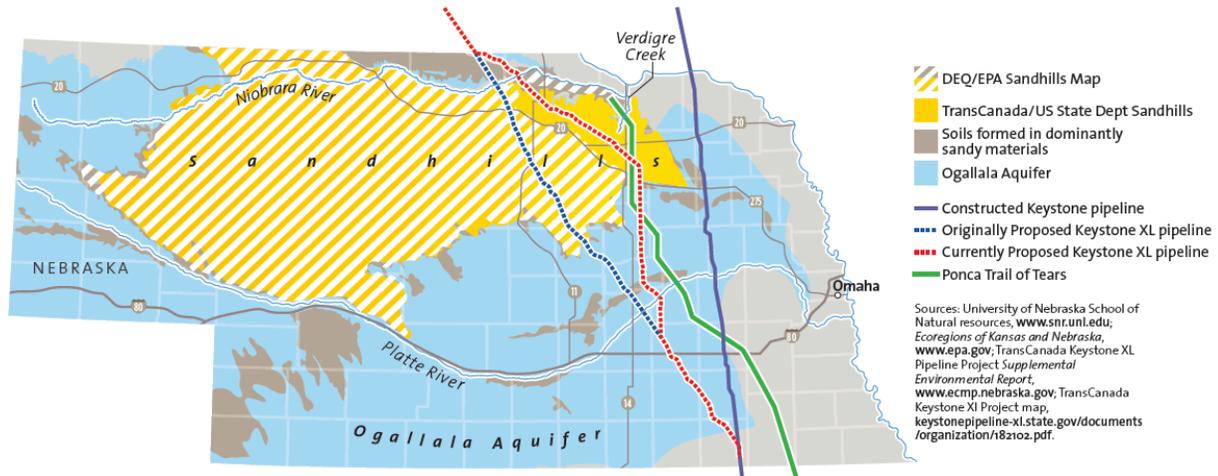
## Your Environment

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<b>Your Environment By Topic</b> <a href="#">Focus on Air Quality</a> <a href="#">Air Quality Report</a>  <a href="#">Focus on Water Quality</a> <a href="#">Water Quality Monitoring Report</a> <a href="#">Groundwater Report</a>  <a href="#">Focus on Land Quality/Waste</a> <a href="#">Contaminated Sites</a> <a href="#">Waste Disposal</a> <a href="#">Recycling Directory</a>	<b>Your Environment By Region</b>  Short Grass Prairie North-Central Nebraska Tall Grass Prairie Mixed Grass Prairie	
Select any "Focus on..." topic above to find more information about Air, Water and Land Quality	Select any region above to find out more information about the environment in that area.	
<a href="#">Regional Topics</a>	<a href="#">What Can I Do?</a>	<a href="#">Questions and Answers</a>

## Appendix B:

**Bold Nebraska and Citizen-developed map showing current proposed route crossing Sandhills, sandy soils, and a significant portion of the Ogallala Aquifer**

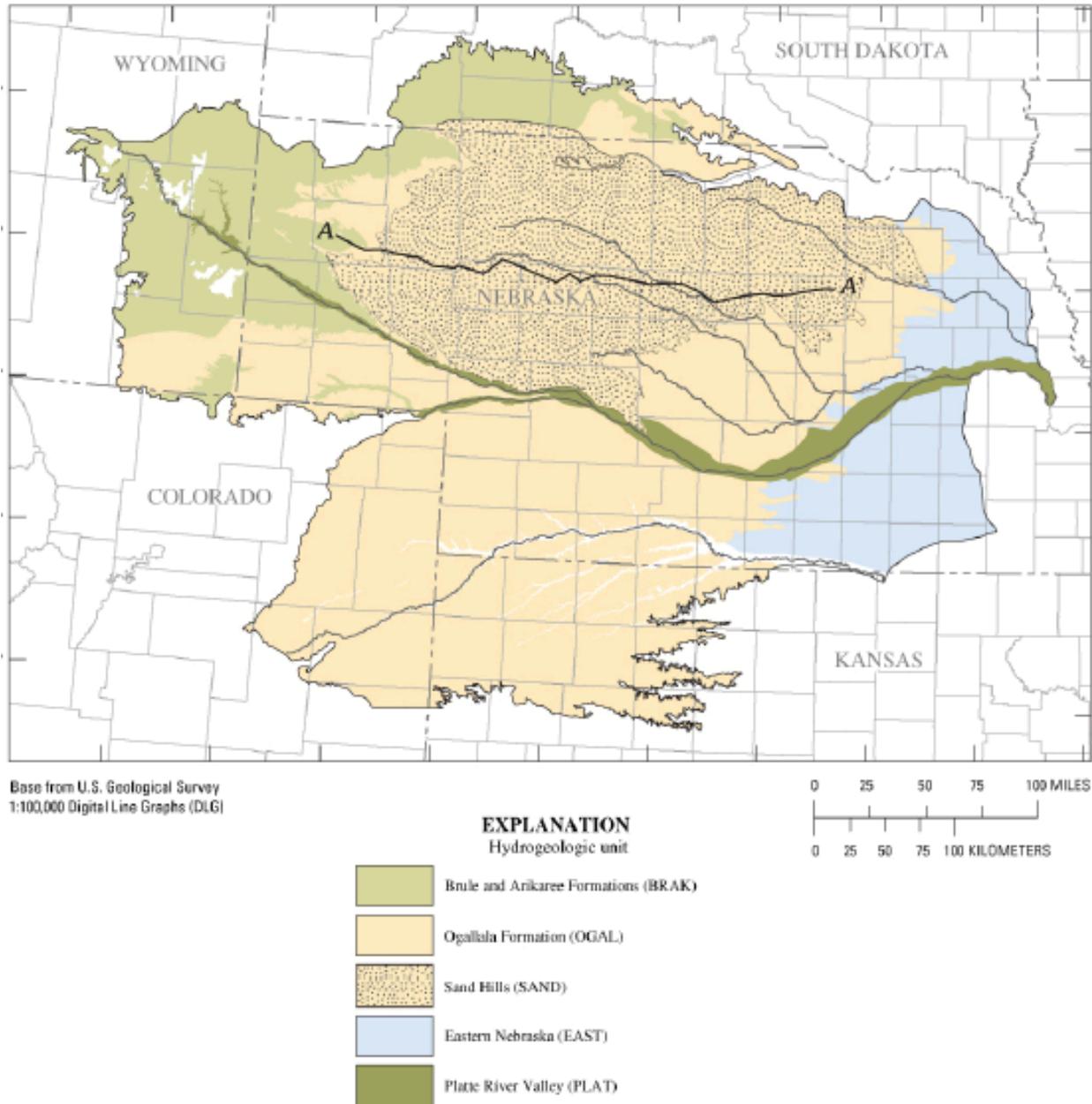


**The proposed Nebraska Reroute crosses many areas of fragile soils in Northern Nebraska:**

- The reroute crosses 94 miles of the NDEQ/TransCanada-defined Sandhills, without including Keya Paha County and the Nebraska Entry Point, which many landowners in Keya Paha county have demonstrated through soil mapping and research is in the Sandhills.
  - The previous (denied) route crossed 92 miles of the NDEQ/TransCanada Sandhills without Keya Paha county and the Nebraska Entry Point.
- The reroute crosses 109 miles of the NDEQ/TransCanada-defined Sandhills when including Keya Paha County and the Nebraska Entry Point.
  - The previous (denied) route crossed 110 miles of the NDEQ/TransCanada-defined Sandhills when including Keya Paha County and the Nebraska Entry Point.

### Appendix C:

#### TransCanada's map submitted to the DOS for the previous Keystone XL route

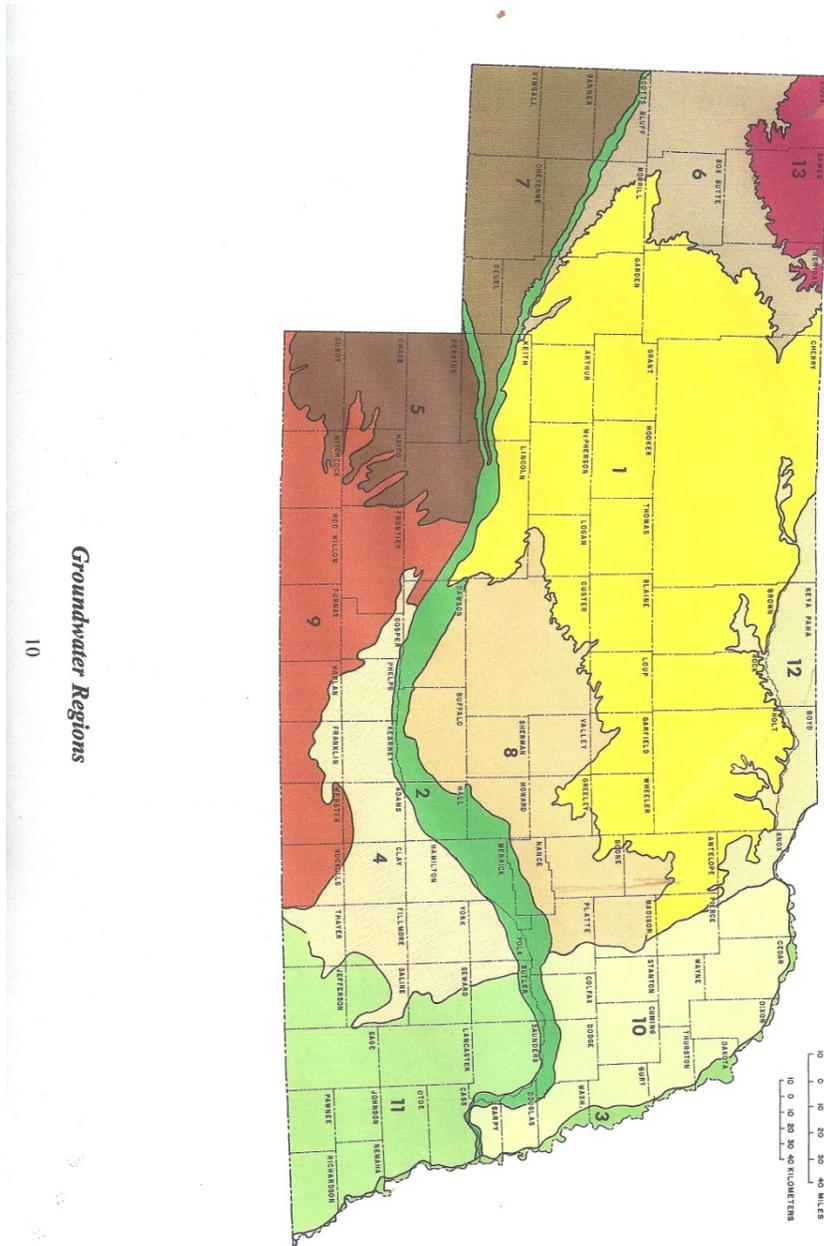


Source: USGS Scientific Investigation Report SIR 2006-5138, Figure 3

Source: <http://keystonepipeline-xl.state.gov/documents/organization/181804.pdf>  
Page 3-83, Figure 3.4-5 "Generalized Geology and Geologic Cross-section A-A in the High Plains Aquifer and Underlying Bedrock."



**Appendix E:  
Map of Nebraska Groundwater Regions showing Sandhills groundwater  
conditions underlying the area crossed by the proposed route.**



Source: Conservation and Survey Division, Institute of Agriculture and Natural Resources, The University of Nebraska-Lincoln. The Groundwater Atlas of Nebraska. Lincoln, Nebraska: The University of Nebraska-Lincoln, 1998.

## Appendix F: Description of Groundwater Regions of Nebraska

**Thirteen groundwater regions in the state are identified on this map (Fig. 3). Within each region groundwater occurs under similar kinds of conditions. Boundaries between regions generally represent zones of gradual change. Discussions of total dissolved solids are a general appraisal of water quality determined by the total of dissolved material in the groundwater. (For more information on the water-bearing properties of the major rock units in the state, see Fig. 4 and table 1.)**

**Sand Hills—Region 1:** The Ogallala Group and the Broadwater and Long Pine formations, all of Tertiary age (table 1), and the dune sands of Quaternary age are the primary sources for large yields of good quality water. As defined by the U.S. Geological Survey (Weeks and others, 1988), these units are part of the High Plains (or Ogallala) aquifer that extends from South Dakota to Texas.

The term *High Plains aquifer* is preferred to *Ogallala aquifer* because Ogallala rocks constitute only one part of this groundwater system. Runoff rarely occurs because precipitation readily infiltrates the sandy soils. This recharge feeds a groundwater reservoir that ranges in thickness from 200 to about 900 feet. Depth to water depends on position in the landscape; it may be 300 feet or greater under the top of a dune, 100 feet or less under a dry interdenudation valley and near to or at the surface in valleys where groundwater discharges into lakes, marshes, or subirrigated meadows. The natural quality of the groundwater is good; total dissolved solids generally are less than 200 milligrams per liter.

**Plate River Valley—Region 2:** High yields of good quality water are obtained from river-deposited (alluvial) sand and gravel. Where present, the Ogallala Group is also used for groundwater. It underlies the river-deposited sediments (alluvium) west of Grand Island to near Lake McConaughy on the North Platte and to the Colorado border on the South Platte. It consists of complex deposits of sand, silt, clay, and gravel interbedded with lime- or siliceous-cemented sandstone.

Depth to the water table is usually less than 50 feet. The saturated thickness of the principal aquifer ranges from about 100 feet or less to about 500 feet or more in Lincoln County. Dissolved solids range from 500 to 1,000 or more milligrams per liter in the western two-thirds of the region. In some parts of the Plate Valley, fertilizer applications are contributing nitrates to groundwater.

**Missouri River Lowlands—Region 3:** Large yields of water can be obtained from the principal aquifer, which is composed primarily of Quaternary alluvial sand and gravel beneath the floodplain of the Missouri River. These deposits are generally less than 100 feet thick and consist primarily of fine- to medium-grained sand and fine-grained gravel interlayered with lesser amounts of silt and clay. Depth to water is usually less than 50 feet. Saturated thickness of the principal aquifer is less than 100 feet. Water is more mineralized than in the Plate Valley but is still of usable quality.

**South Central Plains—Region 4:** Abundant groundwater can be found in the Pliocene and Pleistocene sand and gravel deposits, as well as the Ogallala Group. The Ogallala occurs in the western part of the region. As much as 200 feet thick, it consists of lime-cemented sand and gravel, loess-like silt, and unconsolidated sand and gravel. The overlying Pliocene-Quaternary system consists of more than 500 feet of clay, silt, sand, and gravel deposited by glacial and river-related processes. Deposits of wind-blown silt (loess) mantle the surface. Groundwater levels have risen in the west where water diverted from the Plate River for irrigation has seeped out of canals.

**Southwestern Tablelands—Region 5:** The Ogallala Group's sand and gravel, sand, and sandstone are the principle groundwater-bearing rocks. The group thins from almost 400 feet in the north to being absent in the south. It ranges from 300 feet on the west side of the region to 100 feet on the east. Depths to groundwater vary from about 50 feet or less in western Dundy County to about 200 feet or more in northwestern Perkins County. Total dissolved solids range from 200 to 500 milligrams per liter. Groundwater levels have declined progressively since development began.

**Panhandle Tablelands—Regions 6 and 7:** In the north (Region 6), the Arkkare Group is heavily developed as a source of groundwater for irrigation in Box Butte County and, to a lesser degree, in northern Sheridan County. The overlying Ogallala Group is present mostly as channel deposits, but it is an important source of groundwater in Box Butte County and Sheridan counties. Holocene alluvium is developed as a source of water primarily along the Niobrara River. The thickness of the primary groundwater-bearing units ranges from about 100 feet or less to about 500 feet or more. In upland areas, depth to water may be greater than 200 feet, but may be less than 50 feet in the bottomlands of the principal valleys. Total dissolved solids in the groundwater vary from 200 to 500 milligrams per liter.

In the south (Region 7), the most widespread groundwater-bearing unit is the Ogallala Group. The Holocene alluvium along the major drainages is also very important (table 1). Fracture zones and possibly pseudokarst in the Brule Formation of the White River Group have created significant secondary permeability in localized areas in the valleys of Lodgepole and Pumpkin creeks. Most of these secondary permeability zones are fairly shallow, highly permeable and can yield high volumes of groundwater.

The thicknesses of the saturated groundwater-bearing units are generally less than 300 feet. Depth to the regional water table differs with topographic location. In upland areas, depth to water may be about 200 feet or more, whereas it may be about 50 feet or less beneath the bottomlands in the principal valleys. The groundwater generally contains between 200 and 500 milligrams per liter (mg/L) total dissolved solids, except along the North Platte Valley, where total dissolved solids range from about 500 to 1,000 mg/L.

*(continued on p. 13)*

**Source: Conservation and Survey Division, Institute of Agriculture and Natural Resources, The University of Nebraska-Lincoln. The Groundwater Atlas of Nebraska. Lincoln, Nebraska: The University of Nebraska-Lincoln, 1998.**

## **Appendix G: The Failure of the DSEIS to Adequately Analyze TransCanada's Oil Pollution Act Facility Response Plan**

### **I. The Importance of Crude Oil Spill Response Analysis to the DSEIS Process**

Nebraskans are deeply concerned that TransCanada will spill millions of gallons of heavy diluted bitumen and then fail to respond quickly and thoroughly. This concern is founded on a long history of disastrous oil spills punctuated by a number of recent spills caused by oil company failures, including:

- BP's Deepwater Horizon explosion in the Gulf of Mexico;
- Enbridge's Line 6b rupture into the Kalamazoo River;
- Exxon's Silvertip Pipeline rupture into the Yellowstone River; and
- Exxon's Pegasus Pipeline rupture into the town of Mayflower, Arkansas.

When these spills are viewed against the drumbeat of life-taking natural gas pipeline explosions, Canadian tar sands industry spills, and frequent smaller U.S. pipeline ruptures, Nebraskans have good cause to fear pipeline oil spills and demand that the Administration ensure that pipeline companies are able to respond to spills quickly and aggressively.

Given these recent spills and their substantial impacts, the DSEIS's abysmal analysis of TransCanada's oil spill response capacity is surprising and alarming. The Nebraskans demand hard evidence of TransCanada's actual capacity to protect their families, homes, and communities from a KXL rupture. Rather than provide such evidence, the Administration relies on dry statistics about the frequency of spills, TransCanada's unsubstantiated claims about its spill response capability, and vague recommendations for improved agency oversight, all buried in a tidal wave of generic oil spill information that says nothing about TransCanada's actual plans or capacity.

The DSEIS is also based on an assumption that providing limited cherry-picked information from TransCanada's existing spill response plan provides citizens with adequate information about spill response planning and capability for KXL. This assumption is wrong because (1) the TransCanada's existing plan by definition does not include any information about planning for KXL itself; (2) the limited information provided is largely generic, and even more specific information fails to show adequate response planning even for TransCanada's existing pipelines; and (3) Nebraskans were not provided with a reasonably opportunity to comment on the response plan for the first Keystone Pipeline.

The DSEIS does not include or analyze TransCanada's federally required KXL oil spill response plan, and it also does not provide complete lists of on-the-ground spill response equipment and personnel along the KXL route. Instead, this information remains buried in TransCanada's files and the files of its spill response contractors.

This failure means that the DSEIS provides no assurance that TransCanada can respond quickly and thoroughly to a worst-case rupture of its pipeline. It also means that the DSEIS cannot and has not considered alternative ways to improve TransCanada's planning or made any meaningful recommendations for improvements. Finally, this failure means that the DSEIS fails to provide information on which meaningful public spill response comments can be based. As such, the DSEIS fails to comply with NEPA, and it also fails the people of Nebraska.

## **II. The DSEIS Must Include an Analysis of the KXL FRP to the Full Extent Required by NEPA**

The DSEIS's discussion of spill response planning is included as part of Section 4.13.5, entitled "Recommended Additional Mitigation." Pipeline spill response planning is not "recommended additional mitigation." Instead, the Oil Pollution Act, 33 U.S.C. § 1321 ("Oil Pollution Act" or "OPA"), mandates that TransCanada prepare and submit a facility response plan ("FRP") to the Pipeline and Hazardous Materials Safety Administration ("PHMSA").<sup>1</sup> PHMSA is required by law to fully review and determine whether or not TransCanada's FRP is in compliance with the OPA.<sup>2</sup> A failure by PHMSA to ensure that TransCanada has complied with federal law could result in a botched worst case oil spill response with disastrous environmental and financial impacts and consequences. As such, PHMSA's review of TransCanada's FRP is a major federal action subject to NEPA. To comply with NEPA, the DSEIS must fully analyze the FRP's impacts and unavoidable consequences and also consider alternatives to TransCanada's preferred plan. Because it treats the Oil Pollution Act's requirements as mere "recommended additional mitigation," rather than mandatory major federal action, the DSEIS fails to analyze the FRP to the extent required by NEPA and is legally deficient.

The DSEIS presents a confusing and unclear description of federal oil spill response planning statutory requirements that protect the public from potential KXL spills, and as a result fails to correctly analyze these actions as required by NEPA. Specifically, the DSEIS:

- Fails to distinguish the various "federal actions" that the federal government must take to regulate KXL oil spill planning;
- Fails to correctly analyze the procedural requirements and timing for these federal actions and thereby improperly excludes required analysis;
- Fails to analyze TransCanada's FRP as required by NEPA;
- Misleads citizens about the functioning of U.S. oil spill law; and
- Fails to provide project-specific information within the DSEIS upon which meaningful comments could be based.

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<sup>1</sup> 33 U.S.C. § 1321(j)(5).

<sup>2</sup> 33 U.S.C. § 1321(j)(5)(E). PHMSA is required to formally determine whether it should "approve" the KXL OPA FRP or not.

Citizens want details about TransCanada's actual spill response plans for KXL, but the DSEIS provides only general descriptions of TransCanada's plans for its existing pipelines and generic "oil spill 101" information, neither of which include information specifically about KXL. In fact, the DSEIS repeatedly admits that it does not contain key project-specific information. Its rationale for omitting this information depends on a fundamentally flawed understanding of the FRP approval process and the integration of NEPA into this process. As a consequence, the DSEIS does not include any analysis of TransCanada's KXL OPA FRP.

For the sake of clarity, the DSEIS should contain a clear discussion that distinguishes the following three statutory provisions that regulate TransCanada's oil spill planning:

***Oil Pollution Act "facility response plan"*** – The OPA is the federal government's primary law related to oil spill response and cleanup. It requires pipeline owners and operators to submit "facility response plans" for containment and cleanup of oil after a pipeline has ruptured.<sup>3</sup> PHMSA's oil spill response regulations are contained in 49 C.F.R. Part 194 ("Part 194"), which was promulgated pursuant to the OPA and no other statutory authority.<sup>4</sup> Part 194 includes detailed requirements and guidelines for FRPs, and PHMSA is required by the OPA to "approve" FRPs that comply with federal law or reject those that do not. The DSEIS refers to the OPA FRP as a "Pipeline Spill Response Plan,"<sup>5</sup> which is a descriptive phrase used in PHMSA regulations but is not the name given to this plan by the OPA. Use of a term other than that used in the statute is confusing because it fails to clearly indicate the statutory authority for this plan. For clarity, these comments use the statutory term "Facility Response Plan" or "FRP" when referring to TransCanada's OPA spill response plan.

***Pipeline Safety Act "emergency response plan"*** – The Pipeline Safety Act, 49 U.S.C. § 60101 *et seq.* ("PSA"), requires the following:

Facility Operation Information Standards.--The Secretary shall prescribe minimum standards requiring an operator of a pipeline facility subject to this chapter to maintain, to the extent practicable, information related to operating the facility as required by the standards prescribed under this chapter and, when requested, to make the information available to the Secretary and an appropriate State official as determined by the Secretary. The information shall include –

\* \* \*

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<sup>3</sup> 33 U.S.C. § 1321(j)(5).

<sup>4</sup> 58 FR 14523 (Mar. 18, 1993), as confirmed by 70 Fed. Reg. 8734 (Feb. 23, 2005). PHMSA's rulemaking for Part 194 does not list the PSA, 49 U.S.C. § 60102, as statutory authority and does not consider PSA requirements.

<sup>5</sup> DSEIS at 4.13-75.

- (5) an emergency response plan describing the operator's procedures for responding to and containing releases, including--
- (A) identifying specific action the operator will take on discovering a release;
  - (B) liaison procedures with State and local authorities for emergency response; and
  - (C) communication and alert procedures for immediately notifying State and local officials at the time of a release . . . .

6

This is the only provision in the PSA that references an emergency response plan. Moreover, the PSA contains no detailed standards or procedures related to spill response planning. To put this provision into context, it is important to note that 49 U.S.C. § 60102(d) is entitled, “Facility operation information standards,” such that the subsection’s primary objective is insuring that PHMSA has access to pipeline operator information. The plain language of this section does not require that PHMSA approve emergency response plans; it only requires that operators “maintain . . . and make information available” including “an emergency response plan.” Also, the language does not refer to a specific response plan required by any law or regulation, only that pipeline operators have “an emergency response plan.” Thus, the PSA does not require that TransCanada prepare any specific response plan, only that it include one as part of its operations manual. Since the PSA contains no detailed requirements for spill response planning and does not require that PHMSA approve a spill response plan, PHMSA in fact does not approve any spill response plan pursuant to the PSA.

PHMSA’s implementing regulations for 49 U.S.C. § 60102(d) are contained in 49 C.F.R. Part 195 (“Part 195”). Since the PSA requires only that TransCanada provide access to a spill response plan, Part 195 also contains no emergency response planning standards and does not even use the term “emergency response plan.” Instead, Part 195 requires only that emergency “provisions” be included in a pipeline operator’s operations manual.<sup>7</sup> The only language in Part 195 that even touches on removal of spilled material is the following:

(e) Emergencies. The manual required by paragraph (a) of this section must include procedures for the following to provide safety when an emergency condition occurs:

\* \* \*

(2) Prompt and effective response to a notice of each type emergency, including fire or explosion occurring near or directly involving a pipeline facility, accidental release of hazardous liquid or carbon dioxide from a pipeline facility, operational failure causing a hazardous condition, and natural disaster affecting pipeline facilities.

<sup>6</sup> 49 U.S.C. § 60102(d)(5) (emphasis added).

<sup>7</sup> 49 C.F.R. § 195.402(a), (e).

- (3) Having personnel, equipment, instruments, tools, and material available as needed at the scene of an emergency.
- (4) Taking necessary action, such as emergency shutdown or pressure reduction, to minimize the volume of hazardous liquid or carbon dioxide that is released from any section of a pipeline system in the event of a failure.
- (5) Control of released hazardous liquid or carbon dioxide at an accident scene to minimize the hazards, including possible intentional ignition in the cases of flammable highly volatile liquid.<sup>8</sup>

Thus, PHMSA's PSA regulations contain no standards for oil spill response planning and no requirement that PHMSA approve emergency response plans, but merely require that TransCanada's operations manual contain general safety provisions. As this regulation is applicable to all hazardous liquids pipelines, and not just petroleum pipelines, Part 195 does not include standards that specifically address the containment or removal of spilled petroleum.

Since the PSA and Part 195 do not contain standards for removal of spilled crude oil and do not require that PHMSA approve an oil spill response plan, the PSA does not mandate the preparation of a distinct oil spill response plan. Instead, it requires only that operators provide access to a plan. In contrast, the OPA and its implementing regulations include standards for and require approval of FRPs, which are then used by pipeline operators to fulfill the PSA's information requirements. Thus, the DSEIS's assertion that TransCanada is required by law to prepare two different oil spill response plans is false.

**Clean Water Act "Spill Prevention, Control, and Countermeasure Plan ("SPCC Plan")** – Section 311 of the Clean Water Act ("CWA") regulates oil spills only during construction and mitigation activities, such as spills of diesel fuel from heavy equipment. It does not include any standards for containment or cleanup of crude oil spilled as a result of a pipeline leak or rupture. The U.S.E.P.A. approves SPCC Plans.

Thus, the SPCC Plan, PSA "emergency response plan" information requirement, and the OPA FRP are distinct mandates directed at different purposes. The SPCC Plan applies only during construction, the PSA "emergency response plan" requirement is an information requirement, and the OPA mandates the preparation and approval of an oil spill containment and cleanup plan for spills during pipeline operations. The DSEIS should not confuse the purposes of and actions required by these statutory requirements.

Yet, the DSEIS and TransCanada intentionally obfuscate federal law by stating that the "emergency response plan" required by the PSA for crude oil pipelines is separate from the FRP required by the OPA. There are a number of reasons why there cannot be two separate plans. First, as noted, the PSA and its implementing

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<sup>8</sup> 49 C.F.R. § 195.402(e).

regulations do not contain standards for or require approval of an oil spill response plan. Second, the limited and very broad “emergency response plan” descriptions in the PSA and the very broad “emergency” planning requirements in Part 195 are entirely subsumed by the far more detailed oil spill response planning requirements in the OPA and Part 194. Since more detailed statutory requirements take precedence over general requirements, the FRP acts as the “emergency response plan” for the purposes of the PSA. Third, PHMSA did not cite the PSA as statutory authority for its oil spill response planning regulations in Part 194, but rather cited only the OPA.<sup>9</sup> This is evidence that PHMSA itself considers the OPA to be the only source of its oil spill response planning duties. Fourth, the existence of two separate and distinct oil spill response plans would be redundant and create a risk of confusion during implementation, and therefore is bad public policy. Thus, the primary source of authority for pipeline oil spill response plans is the OPA, not the PSA.

The DSEIS states: “[t]he PSRP would not necessarily need to be a separate report from the ERP.”<sup>10</sup> In fact, the “PSRP” (OPA FRP) is the “emergency response plan” that pipeline operators maintain and make available to PHMSA. Since only one spill response plan is required by federal law, this statement is incorrect.

The DSEIS should not confuse citizens by stating that there are two oil spill response plans when there are not. As a consequence, any document prepared by TransCanada claiming to be an oil spill response plan apart from the OPA FRP is merely a self-constructed creation with no legal authority and cannot be the basis for NEPA review of TransCanada’s OPA FRP.

**A. PHMSA’s review of TransCanada’s KXL FRP is a major federal action subject to NEPA**

The OPA requires TransCanada to “prepare and submit to the President a plan for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge, of oil or a hazardous substance.”<sup>11</sup> In response to a pipeline company’s submission, the law requires that:

- the President<sup>12</sup> shall –
- (i) promptly review such response plan;
  - (ii) require amendments to any plan that does not meet the requirements of this paragraph;
  - (iii) approve any plan that meets the requirements of this paragraph;

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<sup>9</sup> PHMSA rulemakings for Part 195 do not identify the OPA as statutory authority. *E.g.*, 61 F.R. 18512, 18518 (Apr. 26, 1996).

<sup>10</sup> DSEIS at 4.13-75.

<sup>11</sup> 33 U.S.C. § 1321(j)(5)(A)(i).

<sup>12</sup> The President has delegated his individual responsibility to approve plans to the Secretary of the U.S. Department of Transportation, who has in turn delegated this responsibility to the Pipeline and Hazardous Materials Safety Administration (“PHMSA”). Executive Order 12777 (October 18, 1991). The DOT implemented the OPA spill response planning requirement by promulgating 49 C.F.R. Chapter 194.

(iv) review each plan periodically thereafter; . . . .<sup>13</sup>

The President's approval of new FRPs under 33 U.S.C. § 1321(j)(5) and his approval of significant changes to existing FRPs are "major Federal actions significantly affecting the quality of the human environment" as this term is defined by CEQ regulations.<sup>14</sup> Moreover, the federal courts have expressly found that approval of an FRP is subject to NEPA.<sup>15</sup> Therefore, PHMSA's approval of an FRP for KXL is a major federal action. In fact, this approval is one of the most significant federal actions that triggered the preparation of the FEIS and DSEIS.<sup>16</sup> As such, NEPA requires that the DSEIS analyze: (1) the impact of the proposed FRP on the environment; (2) the unavoidable environmental effects should the proposed FRP be approved; and (3) alternatives to the proposed FRP.<sup>17</sup>

NEPA requires that each agency consider the impacts of and alternatives to its particular actions. Where an EIS is used to inform the decisions of multiple agencies, the joint EIS must consider the impacts of and alternatives to each agency's particular action or actions. An EIS that fails to inform an agency about the impacts and alternatives to its particular actions would not accomplish the purposes of NEPA. For example, the DSEIS must inform the U.S. Army Corps of Engineers ("U.S.A.C.E.") about KXL's impacts to wetlands and alternative routing and construction techniques that may reduce wetland impacts. Likewise, the Secretary of State must consider impacts and alternatives related to the location of KXL's border crossing. Yet obviously an assessment of wetlands and border crossing impacts and alternatives is not the same as an assessment of the impacts of and alternatives to the proposed FRP. Therefore, the DSEIS must include a discussion not only of the potential impacts of PHMSA's approval of TransCanada's FRP on the environment, it must also consider

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<sup>13</sup> 33U.S.C. § 1321(j)(5)(E).

<sup>14</sup> CEQ regulations define major federal actions to include, "Approval of specific projects, such as construction or management activities located in a defined geographic area. Projects include actions approved by permit or other regulatory decision . . . ." 40 C.F.R. § 1508.18(b)(4). Since the OPA expressly requires "approval" of FRPs, which approval is clearly a "regulatory decision," PHMSA's approval of TransCanada's FRP is a federal action for the purposes of NEPA. Such action is "major" because the effectiveness, or lack thereof, of TransCanada's FRP would "significantly" impact the environment for better or worse in the event of a major spill. Further, such spill could have substantial, controversial, and uncertain impacts on public health and safety, unique geographic areas, significant scientific, cultural, and historical sites, and threatened and endangered species. Moreover, submission of a legally defective FRP by TransCanada and approval of such FRP would violate the OPA, which was passed to protect the environment.

<sup>15</sup> *Spiller v. Walker*, No. A 98 CA 255 SS, 1998 U.S. Dist. LEXIS 18341 (W. D. Texas 1998) ("The Court concludes, however, that DOT's extensive and intricate oversight and approval of the [pipeline's] safety and emergency-response plan constitutes major Federal action significantly affecting the human environment."); *aff'd*, *Spiller v. White*, 352 F.3d 235 (5<sup>th</sup> Cir. 2003); *rehearing denied*, *Spiller v. White*, 2004 U.S. App. LEXIS 648 (5<sup>th</sup> Cir. 2004); *cert. denied*, *City of Austin v. Brownlee*, 2004 U.S. LEXIS 5526 (Oct. 4, 2004).

<sup>16</sup> DSEIS Table 1.9-1 lists all federal actions related to the project. Other than the Secretary of State's review of TransCanada's Application for a Presidential Permit to construct a border crossing for the pipeline, PHMSA's approval of the KXL FRP is easily the most substantial, highest profile and most controversial federal action triggered by the KXL proposal.

<sup>17</sup> 42 U.S.C. § 4332(C).

alternatives to approval of the proposed FRP, including mitigation measures not already included in the proposed FRP.

DOT NEPA rules also clarify that ERPs are federal actions for the purpose of NEPA. DOT Order 5610.1C (Sept. 18, 1979) (“DOT Order 5610.1C” attached as Exhibit 1) contains the DOT’s NEPA procedural requirements that are applicable when other more specific requirements have not been promulgated. Section 4.a states:

Actions covered. Except as provided in subparagraph c. below, the requirements of this Order apply to, but are not limited to, the following: all . . . regulatory actions, . . . approval of policies and plans (including those submitted to the Department by State or local agencies), . . . and any renewals or reapprovals of the foregoing.

Thus, DOT rules also clarify that approval of FRPs is subject to NEPA.

**B. The OPA, PSA, and PHMSA’s regulations do not prevent submission of TransCanada’s KXL FRP early enough to allow NEPA review**

The DSEIS includes the following single paragraph about the FRP:

In addition to the ERP [purported PSA emergency response plan], a Pipeline Spill Response Plan (PSRP) [OPA FRP] would be prepared and submitted to PHMSA prior to initiating operation of the proposed Project, in accordance with requirements of 49 CFR Part 94. The PSRP would not necessarily need to be a separate report from the ERP. The PSRP would detail Keystone’s spill response and describe the worst case scenario discharge, as well as the procedures in place to manage the discharge. The PSRP requires PHMSA review and approval; however, there is a 2 year grace period under which operation of the pipeline can proceed while PHMSA reviews and approves the PSRP. This period would allow PHMSA to review the proposed Project in its final, as-built state.

The DSEIS states that TransCanada is required to prepare two separate response plans that are “not necessarily separate. As previously discussed, this is an incorrect statement of federal statutory requirements. Further, the DSEIS implies that PHMSA is required to approve FRPs after the start of operations due to the “2 year grace period” such that it is not possible to review the FRP within the NEPA process. This statement has no foundation in federal law. Finally, the DSEIS implies that the plan must be prepared with knowledge of its “as-built state” such that it is not practical for TransCanada to prepare a proposed plan early enough to allow NEPA review. This assertion has no foundation in fact.

With regard to the 2-year period referenced by the DSEIS, the OPA states:

Notwithstanding subparagraph (E), the President may authorize a . . . onshore facility to operate without a response plan approved under this paragraph, until not later than 2 years after the date of the submission to the President of a plan for the . . . facility, if the owner or operator certifies that the owner or operator has ensured by contract or other means approved by the President the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to a worst case discharge or a substantial threat of such a discharge.<sup>18</sup>

The OPA expressly states that a pipeline may not operate unless it has a response plan that has been approved by the President, and that the only exception to this requirement is that the President may authorize a pipeline to operate without a response plan for up to two years after the date of submission of a plan if the President has not approved a submitted plan and if a pipeline's owner or operator certifies that it has the ability to respond to a worst case discharge.<sup>19</sup> Thus, PHMSA retains discretion to allow or prohibit operation of KXL without an ERP. There is no automatic "2 year grace period" provided by law. As such, nothing in the OPA prohibits PHMSA from requiring submission of an FRP prior to construction and operation to allow NEPA review. In fact, if PHMSA required early submission of an FRP, the "2 year grace period" would be needed only in unusual circumstances.

The "2 year grace period" is not a legal right; it is an administrative option that should not be used as a matter of course. OPA Section 1321(j)(5)(E)(i) requires that the President "promptly" review FRPs. Thus, the intent of Congress was to grant agencies limited discretion to allow facilities to continue to operate when an agency fails to approve an FRP prior to the start of operation, and to allow facilities in existence at the time the FRP requirement came into effect time to prepare their FRPs while continuing to operate. Congress did not intend to create a general rule that FRPs need not be approved until two years after the start of operation.

Unlike U.S.C.G. and U.S.E.P.A. regulations,<sup>20</sup> PHMSA's FRP regulations do not include any deadline for submission of an FRP for a new pipeline.<sup>21</sup> PHMSA's regulations do not require that FRP's be submitted for review prior to operation.<sup>22</sup> Instead, this rule is implied from the OPA's prohibition on operation without an FRP.<sup>23</sup> PHMSA apparently believes that because it has not specified a deadline for submission of FRPs, that therefore it cannot require pipeline operators to submit FRPs at any

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<sup>18</sup> 33 U.S.C. § 1321(j)(5)(F) (emphasis added); see also, 49 C.F.R. § 194.7.

<sup>19</sup> 33 U.S.C. § 1321(j)(5)(G).

<sup>20</sup> 33 C.F.R. § 154.1025; 40 C.F.R. § 112.20.

<sup>21</sup> 49 C.F.R. § 194.119.

<sup>22</sup> *Id.*

<sup>23</sup> If an FRP is not submitted prior to operation, there would be no FRP pending approval such that the 2-year period would not apply.

particular time. Such interpretation would mean that federal law allows pipeline operators to determine – in their sole discretion – when to submit an FRP as long as one is submitted before the start of operations.

In addition to being a remarkable abdication of federal authority, this interpretation is illegal because it ignores NEPA procedural requirements. PHMSA has discretion to determine either through guidance or regulation, as do the U.S.E.P.A and U.S.C.G., when a pipeline operator must submit an FRP. Given this discretion, PHMSA must require submission of an FRP in time to allow NEPA review because:

- NEPA requires that “to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth” in NEPA;<sup>24</sup> and
- NEPA review must be completed before a federal approval.

DOT Order 5610.1C states: “To the maximum extent possible, a single process shall be used to meet requirements for environmental studies, consultations and reviews.”<sup>25</sup> Section 17.A of the rule states: “A decision on the proposed action may not be made sooner than the times specified in CEQ 1506.10(b).” CEQ Rule 1506.10(b) prohibits decisions on proposed actions until after publication of a final environmental impact statement.

TransCanada cannot begin construction until after publication of a final environmental impact statement and receipt of required federal approvals. Since the OPA FRP is one of these approvals, PHMSA must require its submittal at a time that allows a full NEPA analysis.

### **C. Practical considerations do not prevent submission of TransCanada’s KXL FRP early enough to allow NEPA review**

TransCanada has claimed that it is not practically possible to submit a FRP to PHMSA for analysis in the DSEIS. This position is echoed by the DSEIS when it states: “[The two-year period] would allow PHMSA to review the proposed Project in its final, as-built state.”<sup>26</sup>

This position is specious. TransCanada’s Operations Manager, John Hayes, provided sworn testimony before the South Dakota Public Utilities Commission (attached as Exhibit 2) that TransCanada typically begins preparation of its FRP about 18 months prior to the start of operation and submits this plan to PHMSA approximately one year before the start of operations. This testimony makes clear that it is not only possible but that it is TransCanada’s standard practice to prepare and submit FRPs well before the beginning of operations. Therefore, “as-built” information is not necessary for oil spill response planning. Mr. Hayes further testified that TransCanada planned to

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<sup>24</sup> 42 U.S.C. § 4332.

<sup>25</sup> DOT Order 5610.1C at 2, 3.

<sup>26</sup> DSEIS at 4.13-75.

submit a proposed FRP for KXL by July 1, 2010, almost three years ago, making it likely that TransCanada has already prepared and perhaps even submitted a proposed FRP for PHMSA's approval. In any case, there can be no doubt that TransCanada is fully capable of preparing its FRP years before the start of operations without reference to "as-built" information. Should as-built changes require modification of the FRP, this could be accomplished through PHMSA's change process,<sup>27</sup> as is done by the U.S.C.G.<sup>28</sup> As such, there is no practical obstruction to submission of an FRP early enough to allow NEPA review.

We note that TransCanada does not intend to submit a new FRP for KXL, but rather will seek changes in its existing Keystone Pipeline System FRP. PHMSA approves new FRPs pursuant to 49 C.F.R. § 194.119 and approves changes to existing FRPs pursuant to 49 C.F.R. § 194.121. As TransCanada intends only to modify its existing FRP, many of its oil spill policies, methodologies, and requirements are already in existence; they simply have not been applied specifically to KXL within a publicly available plan. Since most of the spill response resources claimed to be available for KXL would be provided by TransCanada's existing spill response contractors and most of these resources are regional or even national, TransCanada's on-the-ground capabilities for KXL are likely already known to it or can be easily determined by its contractors. To the extent that TransCanada needs to plan to acquire additional resources, this is exactly the type of planning process that NEPA is intended to inform.

Although some aspects of KXL's design and route will be unknown prior to completion of the federal permitting process and construction, it is nonetheless possible and desirable to prepare a draft FRP that takes into account alternative routes and substantial design alternatives, because consideration of alternatives is part of NEPA's purpose. A review of the FRP in the DSEIS would in fact improve decision making for the overall project because this would allow consideration of spill response factors in pipeline routing, siting, and mitigation decisions.

Thus, there is no practical reason why TransCanada cannot submit a FRP early enough to allow full NEPA review, and doing so would substantially improve the NEPA process.

### **III. The Scope of NEPA Review Required for FRPs**

The scope of the DSEIS's review of the KXL FRP is dependent on the policies and purposes of the OPA's FRP requirement. A more detailed review of FRP requirements and the scope of PHMSA's discretion is necessary because:

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<sup>27</sup> 49 C.F.R. § 194.121.

<sup>28</sup> 33 C.F.R. § 154.1025.

- 1) neither PHMSA nor the DOT have NEPA regulations or guidance specifically applicable to PHMSA's FRP process,<sup>29</sup> and
- 2) apart from the settlement agreement approved in *Spiller v. Walker*, it appears that PHMSA has never acted as a NEPA lead agency for any EIS or EA.

Due to PHMSA's lack of experience with NEPA it has not developed any formal administrative guidance to determine the proper scope of review of an FRP.<sup>30</sup> Accordingly, the following provides a brief summary of FRP statutory and regulatory requirements and PHMSA's scope of discretion. A more detailed discussion of PHMSA FRP requirements, and a comparison of these requirements to U.S.C.G. and U.S.E.P.A. FRP requirements, is included in *The Northern Great Plains at Risk: Oil Spill Planning Deficiencies in Keystone Pipeline System* (Nov. 23, 2010) ("Plains Justice Spill Response Study" attached as Exhibit 3).

The OPA imposes the following requirements on pipeline companies when they prepare FRPs:

- (D) A response plan required under this paragraph shall--
- (i) be consistent with the requirements of the National Contingency Plan and Area Contingency Plans;
  - (ii) identify the qualified individual having full authority to implement removal actions, and require immediate communications between that individual and the appropriate Federal official and the persons providing personnel and equipment pursuant to clause (iii);
  - (iii) identify, and ensure by contract or other means approved by the President the availability of, private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge (including a discharge resulting from fire or explosion), and to mitigate or prevent a substantial threat of such a discharge;
  - (iv) describe the training, equipment testing, periodic unannounced drills, and response actions of persons . . . at the facility, to be carried out under the plan to ensure the safety of the . . . facility and to mitigate or prevent the discharge, or the substantial threat of a discharge;
  - (v) be updated periodically; and
  - (vi) be resubmitted for approval of each significant change.<sup>31</sup>

<sup>29</sup> It appears that the only DOT NEPA guidance applicable to PHMSA is DOT Order 5610.1C, which is the default NEPA guidance applicable to all agencies within the DOT that do not otherwise have NEPA regulations.

<sup>30</sup> Environmental commenters point out the irony of the fact that the federal agency with sole responsibility for protecting the environment from injury by pipelines has almost never conducted a NEPA review for any of its actions.

<sup>31</sup> 33 U.S.C. § 1321(j)(5)(D).

Thus, the OPA's substantive FRP requirements include:

- 1) consistency with the National Contingency Plan and Area Contingency Plans;
- 2) identification of a responsible company official and provision for immediate communications;
- 3) identification of private personnel and equipment necessary remove "to the maximum extent practicable" a worst case discharge; and
- 4) a description of the training, equipment testing, drills, and response actions by company personnel.

The DSEIS should discuss each of these requirements. In addition, Part 194 imposes more detailed requirements. Key statutory and regulatory requirements for FRPs are discussed below.

***Consistency with the National Contingency Plan and Applicable Area Contingency Plans*** – The OPA and PHMSA's regulations require that a pipeline operator demonstrate that its FRP is consistent with national and regional oil spill response plans.<sup>32</sup> These plans establish national standards and planning goals. However, the language of the OPA and Part 194 differs with regard to this requirement. The OPA states:

(D) A response plan required under this paragraph shall--  
 (i) be consistent with the requirements of the National Contingency Plan and Area Contingency Plans . . . .<sup>33</sup>

In contrast, Part 194 states:

An operator must certify in the response plan that it reviewed the NCP and each applicable ACP and that its response plan is consistent with the NCP and each applicable ACP . . .

A certification unfounded on substantial evidence of consistency would not satisfy the OPA's requirement that a "response plan . . . shall be consistent . . . ."

***Determination of Response Zones*** – Due to the length of interstate pipelines, Part 194 requires that FRPs be based on delineated "response zones." Section 194.5 defines "response zone" as follows:

Response zone means a geographic area either along a length of pipeline or including multiple pipelines, containing one or more adjacent line sections, for which the operator must plan for the deployment of, and provide, spill response

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<sup>32</sup> 49 C.F.R. § 194.107(b).

<sup>33</sup> 33 U.S.C. § 1321(j)(5)(D)(i).

capabilities. The size of the zone is determined by the operator after considering available capability, resources, and geographic characteristics.

The regulations allow operators to define their own response zones based on certain spill response factors. The regulations do not contain any objective standards against which PHMSA can evaluate a company's response zone demarcations. As such, the PHMSA Administrator has complete and unguided regulatory discretion when approving response zones.

***Determination of Worst Case Discharge*** – The OPA requires that an FRP's equipment and personnel requirements be based on preparation for a worst-case discharge scenario.<sup>34</sup> Section 1321(a)(24)(B) defines a worst case discharge for pipelines as “the largest foreseeable discharge in adverse weather conditions.” PHMSA's regulations define “worst case discharge” by largely parroting the statutory language:

Worst case discharge means the largest foreseeable discharge of oil, including a discharge from fire or explosion, in adverse weather conditions. This volume will be determined by each pipeline operator for each response zone and is calculated according to § 194.105.

Thus, worst-case discharges must be determined by a pipeline operator, subject to PHMSA review. Considerations of the impact of fire, explosions, and bad weather are included because these factors may impact a spill's geographic scope of damage as well as the amount of response equipment and personnel required.

In addition to this general definition, Section 194.105 provides a methodology for determining the volume of oil that would form that basis for the worst case discharge scenario:

- (a) Each operator shall determine the worst case discharge for each of its response zones and provide the methodology, including calculations, used to arrive at the volume.
- (b) The worst case discharge is the largest volume, in barrels (cubic meters), of the following:
  - (1) The pipeline's maximum release time in hours, plus the maximum shutdown response time in hours (based on historic discharge data or in the absence of such historic data, the operator's best estimate), multiplied by the maximum flow rate expressed in barrels (cubic meters) per hour (based on the maximum daily capacity of the pipeline), plus the largest line drainage volume after shutdown of the

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<sup>34</sup> 33 U.S.C. § 1321(j)(5)(D)(iii).

- line section(s) in the response zone expressed in barrels (cubic meters); or
- (2) The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels (cubic meters), based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventive action taken; or
- (3) If the response zone contains one or more breakout tanks, the capacity of the single largest tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system, expressed in barrels (cubic meters).
- (4) Operators may claim prevention credits for breakout tank secondary containment and other specific spill prevention measures . . . .

The mere calculation of a volume does not fully encompass the statutory definition of this term, because the OPA requires analysis of not only the volume of oil spilled but the geographic extent of a worst case discharge. This distinction is important because the amount of response resources needed for a worst case discharge is more dependent on a spill's geographic extent than on the amount of oil spilled.<sup>35</sup> That is, the word "largest" refers not simply to the volume of a spill in barrels or gallons, but is also means its "largest" geographic extent. The requirement that explosions, fire, and weather all be considered is consistent with the need to define the geographic scope of a worst case discharge. These non-volumetric factors do not substantially affect the amount of oil that spills out of a pipeline after a rupture, but they may substantially impact the geographic extent of a spill by hindering containment activities or accelerating dispersal of oil into and through waterways. This definition is consistent with U.S. Coast Guard's practice of developing worst case spill scenarios.<sup>36</sup>

<sup>35</sup> For example, a spill that only threatened waters of the U.S. but was contained to a small area by topography would require substantially lower amounts of response resources than a spill directly into a major river or one of the Great Lakes during severe thunderstorms or blizzards. Since the purpose of Section 1321 is to ensure that adequate equipment and personnel are available to respond to and clean up a real-world worst case oil spill, and it is impossible to estimate this need without consideration of the possible geographic extent of an oil spill, mere calculation of a worst case discharge volume cannot accomplish the purposes of the CWA.

<sup>36</sup> The U.S.C.G. develops specific worst case oil discharge scenarios, e.g., U.S.C.G Sector Baltimore. Upper Chesapeake Estuary Area Contingency Plan (2009) § 9420.3, 9420.3. This ACP defines the worst case vessel discharge scenario within its scope of jurisdiction by considering the following factors:

1. Historical spill considerations - Based on vessel traffic patterns, types of vessels transiting the area and cargos carried, the worst case area scenario involves a 12 million gallon capacity tanker carrying No. 6 fuel oil (Bunker C) in a collision with a towed barge carrying 120 containers of non-hazardous cargo. A collision was chosen over a large vessel grounding because the soft bottom of the Chesapeake Bay and typical sea conditions would not cause a vessel to break apart and founder. The location is north of Smith Point, VA near the confluence of the Chesapeake Bay and the Potomac River. It was chosen for the following reasons:
  - a. Remoteness from response resources in the Baltimore and Norfolk area.
  - b. The area is surrounded by land so that shoreline would be impacted regardless of wind and current direction.

**Identification of Spill Response Resources** – The heart of the OPA is its requirement that oil companies acquire and preposition spill response equipment and trained personnel that are capable of containing and cleaning up spilled oil. Section 194.107 contains the following response resource requirements:

(a) Each response plan must include procedures and a list of resources for responding, to the maximum extent practicable, to a worst case discharge and to a substantial threat of such a discharge.

\* \* \*

(c) Each response plan must include:

(1) A core plan consisting of --

\* \* \*

(v) Response activities and response resources . . .

In turn, Section 194.5 defines “maximum extent practicable” as:

Maximum extent practicable means the limits of available technology and the practical and technical limits on a pipeline operator in planning the response resources required to provide the on-water recovery capability and the shoreline protection and cleanup capability to conduct response activities for a worst case discharge from a pipeline in adverse weather.

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- c. The incident is likely to impact Virginia waters and shores, in addition to those of Maryland, requiring coordinated efforts of state and federal agencies in both states.
  - d. The area is near numerous environmentally sensitive waters, marshes and tidal areas.
  - e. Tank vessels inbound for Baltimore or the oil transfer facilities at Piney Point routinely transit the area.
  - f. The region is sparsely populated and thus lacks the infrastructure (e.g. manpower, accommodations, port facilities, beach access, etc.) needed to support large scale cleanup operations.
  - 2. Hazard assessment - Fire hazard, health hazard, economic and critical area impact including probable disruption of shipping to Baltimore and Washington, adverse impact on the commercial and charter fishing business in this region by the real or perceived threat to fish and shellfish, and impact on tourist and recreational industries.
  - 3. Vulnerability analysis - Inclement weather, mechanical failure and human error are potential contributions to the incident.
  - 4. Risk assessment - High traffic volume and channel convergence pose substantial risks.
  - 5. Seasonal considerations - All seasons present significant concerns. However, the summer would pose the most difficult set of circumstances as it would be the height of the recreational boating season as well as the primary time frame for fin fish spawning in this area.

The U.S.C.G. plays out this specific scenario in § 9440.3.1.1 by discussing the specific challenges and resource needs in a response to this scenario. Such scenarios provide evidence of actual planning for spill response and go beyond providing evidence of a general awareness of generic spill response planning tactics.

Section 194.5 defines “response resources,” to mean:

Response resources means the personnel, equipment, supplies, and other resources necessary to conduct response activities.

Section 194.115, which is the only section in Chapter 194 that describes required response resources, is provided in its entirety as follows:

- (a) Each operator shall identify and ensure,<sup>37</sup> by contract or other approved means, the resources necessary to remove, to the maximum extent practicable, a worst case discharge and to mitigate or prevent a substantial threat of a worst case discharge.
- (b) An operator shall identify in the response plan the response resources which are available to respond within the time specified, after discovery of a worst case discharge, or to mitigate the substantial threat of such a discharge, as follows:

	Tier 1	Tier 2	Tier 3
High volume area	6 hrs	30 hrs	54 hrs.
All other areas	12 hrs	36 hrs	60 hrs.

Significantly, **PHMSA’s regulations contain no standards whatsoever for the amount of required response resources** but instead merely parrot the very general statutory requirement that the resources be those “necessary to remove” a worst case discharge.<sup>38</sup> That is, the regulations specify the timeframes in which resources must arrive and requires that a pipeline operator identify these resources, but the regulations do not specify the amount of resources required or provide any methodology for determining such amount. Regardless, FRPs must comply with the OPA.

The timeframes are defined based on whether or not an area is a “high volume area,” which Section 194.5 defines as:

High volume area means an area which an oil pipeline having a nominal outside diameter of 20 inches (508

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<sup>37</sup> In the statutory language, there is a comma after the word “identify.” Section 1321(j)(5)(D)(iii) states that response plans shall “identify, and ensure by contract or other means approved by the President the availability of, private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge (including a discharge resulting from fire or explosion), and to mitigate or prevent a substantial threat of such a discharge . . . .” PHMSA’s regulations remove this comma and instead insert a comma after the word “ensure,” thereby changing the meaning of this language. The statute’s plain language requires that FRPs identify resources, and that these resources may be ensured by contract. PHMSA’s language appears to allow a contract to identify resources rather than the FRP itself. Such interpretation would be a violation of law.

<sup>38</sup> Cf. 33 U.S.C. § 1321(j)(5)(D)(iii).

millimeters) or more crosses a major river or other navigable waters, which, because of the velocity of the river flow and vessel traffic on the river, would require a more rapid response in case of a worst case discharge or substantial threat of such a discharge. Appendix B to this part contains a list of some of the high volume areas in the United States.

Emphasis added. Appendix B contains a relatively short list of locations along rivers in the U.S., but as noted above, this list is not intended to be inclusive. "Major river" is defined as:

Major river means a river that, because of its velocity and vessel traffic, would require a more rapid response in case of a worst case discharge. For a list of rivers see "Rolling Rivers, An Encyclopedia of America's Rivers," Richard A. Bartlett, Editor, McGraw-Hill Book Company, 1984.

Thus, where oil may be spilled into a fast flowing river sufficient in size to have vessel traffic, FRPs are required only to identify which resources would be at the spill within six hours, rather than twelve hours. The reason for this rule is that major rivers usually have fast currents with the result that oil may spread very quickly if not contained. To protect each identified High Volume Area, PHMSA's regulations require that a pipeline company identify what response resources ("personnel, equipment, supplies, and other resources necessary to conduct response activities") would be on-scene at that High Volume Area within six hours of notification of a rupture.

This being said, **PHMSA's regulations contain no detailed mandatory requirements for how a pipeline company must calculate the amount of equipment and personnel needed to respond to spills into High Volume Areas, or anywhere else for that matter.** Given that there is no simple relationship between the amount and type of oil spilled and the amount of response equipment needed for such spill, it is clear that PHMSA in fact has no objective standards for determining how much spill equipment and personnel are needed to respond to a pipeline spill. Thus, the PHMSA Administrator has retained for herself unfettered and unguided discretion to determine if a pipeline company's estimates of equipment needs complies with federal law.

In Appendix A to 49 C.F.R. Part 194 ("PHMSA Appendix A") provides non-mandatory "guidelines" for preparation of response plans that reference a limited set of materials prepared by other agencies. The introduction to Appendix A states:

This appendix provides a recommended format for the preparation and submission of the response plans required by 49 CFR Part 194. Operators are referenced to the most current version of the guidance documents listed below.

Although these documents contain guidance to assist in preparing response plans, their use is not mandatory:

- (1) The "National Preparedness for Response Exercise Program (PREP) Guidelines" (PREP), which can be found using the search function on the USCG's PREP Web page, <http://www.uscg.mil>;
- (2) The National Response Team's "Integrated Contingency Plan Guidance," which can be found using the search function at the National Response Center's Web site, <http://www.nrt.org> and;
- (3) 33 CFR Part 154, Appendix C, "Guidelines for Determining and Evaluating Required Response Resources for Facility Response Plans."

PHMSA Appendix A is essentially a recommended outline for the contents of FRPs. It does not include any binding standards for FRPs, nor does it contain any detailed guidance for determining the amount of spill response equipment and personnel that must be provided by pipeline operators. Even though it incorporates by reference one document prepared by the Coast Guard and one by the National Response Team, use of these documents and the standards they contain is not mandatory. The third document<sup>39</sup> listed is of particular interest because it contains mandatory USCG FRP standards<sup>40</sup> for the type, general location, and amount of equipment required to be identified FRPs subject to USCG approval. Whereas PHMSA's regulations do not contain any mandatory equipment standards for the FRPs it approves, the USCG regulations provide USGC personnel with meaningful detailed standards for evaluation of USCG-approved FRPs.

It is remarkable that PHMSA's FRP regulations do not contain detailed standards for equipment or personnel needed to respond to oil pipeline spills, because determination of the sufficiency of response equipment is not a simple task. It appears that PHMSA allows pipeline companies to define for themselves the extent of their response zones and the type, amount, and location of response equipment and personnel needed to respond to these discharges, but then provides no meaningful standards that would allow PHMSA staff to determine whether or not a pipeline's FRPs is in compliance with the OPA. Although PHMSA retains ostensible approval authority over pipeline FRPs,<sup>41</sup> absent more detailed standards it is impossible to know the specific standards that the PHMSA Administrator might use in the FRP approval process. This lack of detailed and mandatory pipeline FRP standards is a significant weak link in the federal regulatory chain that must be strengthened. PHMSA's failure to

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<sup>39</sup> 33 C.F.R. Part 154, Appendix C ("USCG Appendix C").

<sup>40</sup> See, e.g., 33 C.F.R. § 154.1045(b) and (e), which respectively require the use of Appendix C when determining equipment operating criteria and when calculating the quantity of response resources required within specified timeframes to respond to a worst-case discharge. The U.S.E.P.A. has also promulgated a required quantified methodology for determining the type and amount of equipment required to respond to a worst case discharge. 40 C.F.R. Part 112, Subpart D, Appendix E (Determination and Evaluation of Required Response Resources for Facility Response Plans).

<sup>41</sup> 49 C.F.R. § 194.119.

promulgate mandatory detailed standards for pipeline FRPs stands in marked contrast to the both EPA and USCG regulations implementing the same statutory authority.

#### **IV. The Urgent Need for the President to Provide Express Commitments Within the DSEIS to Improve the KXL FRP**

Recent spills, such as the rupture of Exxon Mobil's Pegasus Pipeline on March 29, 2013, that released heavy Canadian crude into an American suburb, highlight both the basic truth that pipelines rupture and the ongoing need for responsible and aggressive spill response planning. Moreover, these spills demonstrate that the industry is poorly prepared to respond rapidly to pipeline spills, and that part of the reason for this failure is the utter ineffectiveness of PHMSA FRP regulations and oversight. These spills also provide real-world experience against which to compare TransCanada's existing Keystone System FRP.

##### **A. Recent Spill History Demonstrates the Need for Aggressive Spill Response Capability**

The recent spill in Mayflower, Arkansas, highlights the ongoing need for pipeline safety and spill response, but as its cause and spill response have not yet been fully analyzed, only limited conclusions can be drawn from it. The best studied recent example of a major pipeline spill and response is Enbridge's Line 6b spill near Marshall, MI, that ultimately damaged about 35 miles of the Kalamazoo River. The facts related to this spill are described and discussed in the National Transportation Safety Board's ("NTSB") report on this spill ("NTSB Line 6b Report," attached as Exhibit 4), and in the Great Plains at Risk Report.

On July 26, 2010, Enbridge reported that its 30-inch diameter 6B Pipeline had ruptured and released an estimated 843,444 gallons of crude oil (approximately 94 semi tanker trucks) of diluted bitumen in a rural area about one mile south of Marshall, Michigan.<sup>42</sup> Investigation showed that the oil flowed into a culvert, which led to Talmadge Creek, then followed the creek to the Kalamazoo River, ultimately contaminating about 30 to 35 miles of the River before it was contained. After the spill, the River flooded and stranded oil on floodplains, wetlands, backwaters, and islands. Importantly, the spill threatened to flow all the way to Lake Michigan, which would have fouled many more miles of river, as well as the lake's shoreline.

At the time of the rupture, the 6B Pipeline was transporting a very heavy crude oil from Canada, called "Cold Lake Blend," which is a mix of tar-like bitumen from the Canadian tar sands and a liquid material called "diluent." The diluent is mixed with the bitumen to make it more liquid so that it can be pumped through the pipeline. Diluent is often made using "natural gas liquids," which are light oils that are produced by natural gas wells as a byproduct.

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<sup>42</sup> NTSB Line 6b Spill Report at xii; U.S. House of Representatives, Committee on Transportation and Infrastructure, Staff Report for September 15, 2010, Hearing on Enbridge Pipeline Oil Spill in Marshall, Michigan, September 14, 2010 (House Staff Memo).

The operating temperature of the pipeline at the time of the spill has not been disclosed, but bitumen blends are typically transported at higher temperatures, because elevated temperatures also make heavy oils less viscous. Elevated pressures and temperatures may also result in an immediate off-gassing of diluents, thereby creating a strong smell when the oil is exposed to air, with the result that heavy blended oils may revert to bitumen when spilled.

The type of oil spilled is important to cleanup efforts because the properties of the spilled oil determine how it behaves when spilled, where it ends up, and the types of equipment needed to clean it up. Lighter petroleum products, such as gasoline and diesel fuel, evaporate quickly, with the result that a large amount of the spill ends up in the air and not in the water or on land, and the oil that does not evaporate floats on water. In contrast, only a small amount of the bitumen evaporates, and it can become heavy enough to sink in water.

As a result, cleanup efforts for lighter crude oils expect to recover a relatively small portion of the spilled oil, and if the spill is into water, the oil will need to be removed by skimming the oil from the surface of water. Further, spill response equipment and training typically focuses on removal of floating oil, in part because light oil spills, such as diesel fuel leaks from boats, are more common. In contrast, cleanup of very heavy crude oil can be expected to recover a higher proportion of the spilled oil because less of the oil evaporates or is dispersed into water. Further, the heaviest components of dilbit ultimately sink. The result is that cleanups of dilbit require removal of the oil by dredging, and not just by skimming.

The Cold Lake Blend spilled by the 6B Pipeline had an American Petroleum Institute (API) gravity rating of 11. In contrast, bitumen has an API rating of around 8 and diluents have an API rating of 69.3.<sup>43</sup> If a rating is over 10, then the oil will float when first spilled. However, once the oil is exposed to air, the diluent will begin to evaporate and the oil will become heavier, with the result that some of it will sink. In fact, a very large amount of the oil spilled by Line 6b sank, with the result that removal efforts are ongoing nearly three years after the spill

Time is of critical concern when responding to oil spills, because the longer the delay in stopping flows and capturing released oil, the farther the oil contamination and damage spreads, making cleanup more difficult and expensive. The National Transportation Safety Board (NTSB) provides great detail about the sequence of events.<sup>44</sup> Approximately 17 hours passed between the start of the spill and the time that Enbridge received notification of the spill from a natural gas utility employee. This means that the spilled oil was already at or near the Kalamazoo River before any spill

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<sup>43</sup> House Staff Memo; Environment Canada Cold Lake Diluent Reference Sheet from [http://www.etc-cte.ec.gc.ca/databases/OilProperties/oil\\_prop\\_e.html](http://www.etc-cte.ec.gc.ca/databases/OilProperties/oil_prop_e.html).

<sup>44</sup> NTBS 6b Spill Report Section 1.2.

containment activities began. The following is a summary timeline of events preceding Enbridge's phone calls to the federal government notifying it about the rupture.<sup>45</sup>

Sunday, July 25, 2010

- 5:58 PM: **Pipeline pump automatically shuts down** when Enbridge control center in Edmonton, Canada, receives **low pressure alarm**; the control center attributes the alarm to a "column separation," meaning that they thought a vapor bubble formed in the pipeline.
- 9:25 PM: **First 911 calls** from residents near the rupture due to odor

Monday, July 26, 2010

- 4:04 AM: **Enbridge restarts pipeline**
- 4:12 AM: **Volume balance alarm** (less oil in pipeline downstream than upstream)
- 4:17 AM: Second volume balance alarm
- 4:22 AM: Third volume balance alarm
- 4:36-4:57 AM: Several more volume balance alarms
- 5:03 AM: **Enbridge control center turns off Pipeline pumps**
- 6:30-8:00 AM: Residents notice strong odor on way to work
- 7:00 AM: Local resident collects oil sample from Talmadge Creek
- 7:10 AM: **Enbridge restarts pipeline pumps**
- 7:12-7:42 AM: Five additional volume balance alarms
- 7:55 AM: **Pipeline pumps shutdown and downstream valve closed**
- 9:49 AM: Technician called to check a pump station about three-quarters of a mile from the rupture
- 11:18 AM: A gas utility calls Enbridge to report on oil in Talmadge Creek
- 11:20 AM: Enbridge begins closing valves upstream and downstream of the rupture
- 11:41 AM: **Enbridge personnel confirm leak** and begin to respond to the spill
- 1:29 PM: **Enbridge reports spill to the federal government**

From this timeline it appears that Enbridge operated the pipeline pumps for a total of approximately two hours after rupture. Further, Enbridge's failure to interpret its SCADA data correctly allowed the dilbit to flow out of Talmadge Creek and miles down the

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<sup>45</sup> House Staff Memo p. 3-6.

Kalamazoo River, thereby resulting in a substantially more damaging and expensive spill than would have happened if the spill was discovered and isolated immediately.

Once Enbridge confirmed the spill, it began using its own spill response equipment and started calling in private clean up companies. Enbridge has not publicly disclosed the exact amount of spill equipment and personnel that arrived on each of the first three days of the spill.

Due to the very large amounts of equipment needed to respond to major spills, pipeline companies do not own the vast majority of equipment needed, but rather contract with private spill cleanup contractors who transport in equipment from locations across the U.S. These contractors first brought in equipment from southern Michigan, the Chicago and Detroit metropolitan areas, and western Ohio, but given the amount of equipment used, it is likely that much of the equipment ultimately used was brought in from the across the eastern U.S.

The timing and quantity of response resources can substantially impact the effectiveness of spill response. The location of spill equipment relative to the spill is important because rapid response can significantly reduce the impacts of a spill. Oil can move two to five or more miles down a river per hour, meaning that when oil spills into moving water it is important that an initial wave of personnel and equipment sufficient to contain the spill be on site within hours.

Enbridge was fortunate to the extent that the spill happened near caches of its own equipment and relatively near large spill cleanup contractors in Chicago and Detroit. Also, Enbridge benefitted from the fact that the pipe ruptured relatively close to cities and towns with sufficient lodging and food for a large number of temporary spill response workers. If this spill had been far from one of its equipment caches and services for response workers, its spill response would have been much slower.

The following table, based on Enbridge reports to the media, identifies the amount of certain types of equipment and personnel brought in during the first week of the response, but it also provides the largest amounts reported by Enbridge at any time for two months after the rupture.

<b>Enbridge Report Date</b>	<b>Personnel</b>	<b>Boom Deployed (ft)</b>	<b>Boats</b>	<b>Skimmers</b>	<b>Vacuum Trucks</b>	<b>Frac Trucks</b>	<b>Tanker Trucks</b>
<b>First Week After Rupture</b>							
26-Jul-10	50						
27-Jul-10	150						

28-Jul-10	250						
29-Jul-10	450	12,310	15	14	43	Yes	Yes
30-Jul-10	631	25,000	36		71	>64	12
31-Jul-10	683	60,000	40	39	76	77	17
1-Aug-10	730	69,000	43	48	79		19
<b>Throug h 30- Sep-10</b>	<b>2,055</b>	<b>157,000</b>	<b>43</b>	<b>48</b>	<b>79</b>	<b>77</b>	<b>19</b>

Thus, Enbridge brought in a total of **over 2,000 personnel, over 150,000 feet (28 miles) of boom, 175 heavy spill response trucks, 43 boats, and 48 skimmers**. This being said, it is certain that Enbridge also deployed substantial numbers of spill response vans and trailers with portable equipment and hand tools, boom trailers, portable storage tanks and pumps, trailer tow vehicles, pickups and other light vehicles, dump trucks, excavators, and aircraft. The NTSB estimated, as of July 2012, that the cost of responding to this spill was \$767 million,<sup>46</sup> but now it is widely estimated that the final cost will exceed \$1 billion largely due to the cost of dredging bitumen.<sup>47</sup>

The response to this spill required a substantial amount of equipment. Containment of large spills into creeks and rivers typically require multiple boom and skimmer sites, each set up and serviced by crews, portable tanks, pumps and/or vacuum trucks and tank trucks. Most of the 48 skimmers deployed by Enbridge captured oil from different boom sites, and each skimmer would need to be serviced 24/7 by pumps, tanks, trucks, and the crew to operate them. Likewise, each vacuum truck would need a crew to operate and maintain it, and would likely need to be emptied into other tank trucks so that vacuuming could continue without interruption. This being said, Enbridge was not prepared to respond to submerged dilbit early in the spill response such that submerged oil spread under booms throughout a very large geographic area.

Because power equipment cannot access all areas contaminated with oil, oil spill cleanups require that large areas be protected by hand placement of booms or cleaned by hand using tools from spill response trailers and vans. This type of handwork is

<sup>46</sup> NTSB Line 6b Spill Report at xii.

<sup>47</sup> E.g., Lansing State Journal, Enbridge: Oil Spill Cleanup Costs Nearing \$1 billion (Mar. 21, 2013); available online at <http://www.lansingstatejournal.com/article/20130321/NEWS01/303210069/Enbridge-Oil-spill-cleanup-costs-nearing-1-billion> .

enormously labor intensive and requires substantial amounts of hand tools and supplies, such as absorbent pads. This work is often dirty and dangerous and time is of the essence, so workers need to be trained both in spill response techniques and safety.

The equipment listed by Enbridge plays specialized roles in spill cleanup efforts. A brief description of the types and intended purpose of this response equipment follows.

**Boom** – Oil spill booms are floating barriers intended to contain oil spills in calm non-flowing waters and to channel oil toward skimmers or vacuums in moving water. Boom is categorized as either containment boom or absorbent boom, the difference being that absorbent boom is made of material that also absorbs spilled oil. Different types of boom are needed depending on whether the water is flowing or still, and depending on how rough the water is. Thus, boom intended for use in the ocean or Great Lakes is not appropriate for use on stream and rivers, and vice versa. Likewise, the type of boom needed for a major river is not the same as would be required for a creek. Boom is measured by length and height, with longer and higher boom used in open water, while shorter height and length boom is used in moving waters. Boom is not effective in containing submerged oil.

**Boats** – Unlike ocean spills where larger vessels participate in containment and cleanup, inland spills into lakes, streams, rivers, and wetlands requires the use of different types of boats, depending on the nature of the water. In large rivers, larger boats with powerful motors are required to position boom across river currents. In smaller river and lakes, boats intended for use in shallow water are needed. Work in wetlands or partially frozen lakes and rivers may require the use of airboats or other specialized craft. Since major spills into rivers also require the placement and maintenance of dozens of boom sites, the ability to ferry cleanup crew to islands and shorelines that are not accessible by land, and vessels to monitor the spread of oil and response efforts, spill responders may need dozens of boats.

**Skimmers** – Oil skimmers remove floating oil from water. As with boom, different types of skimmers are required for the ocean, lakes, rivers, and streams. Common types include weir, oleophilic (oil attracting), and suction skimmers, each of which uses a different technique to collect oil. On the ocean and lakes, boats use boom to gather or surround oil, which is then removed with skimmers. In rivers and streams, a series of booms are used to channel floating oil toward skimmers located near the shore where the water is still enough to allow skimming. Size and type are also important. A large skimmer suitable for use on the ocean or Great Lakes would not be usable in a smaller river or stream. Further, some skimmers, such as suction skimmers, work best in smooth water and tend to become clogged with debris so require constant attention. Skimmers are not 100% efficient at capturing only oil, but instead capture a mixture of oil

and water, which is pumped into tanks for transportation to processing facilities that separate the oil and water so the oil can be reclaimed.

**Vacuum Trucks** – An important way to remove oil from inland waters and land is to vacuum it up. Typically, cleanup crews vacuum oil using vacuum trucks, but other types of portable vacuum units may also be used. Depending on the type of truck, vacuum trucks can collect oiled water, rocks, dirt and vegetation and may have air filters to limit chemical emissions from the captured oil. For obvious reasons, vacuum trucks are not typically used in open water spills, although it is possible to place them on barges. Unlike more specialized spill response equipment such as skimmers and boom, vacuum trucks are also used to clean tanks and for other industrial and commercial cleaning needs, and are also used in responses to spills from tanker trucks and rail cars. As a consequence, vacuum trucks are relatively common in industrial areas, but uncommon in rural areas.

**Frac Trucks and Tanks** –“Frac trucks” and “frac tanks” are mobile storage tanks, located either on trucks or towed, that are used to collect a variety of liquids, typically in oil field operations.

**Tanker Trucks** – Used to transport collected oil to disposal or recycling locations. As with vacuum trucks, tanker trucks capable of transporting oil are relatively common in industrial areas and in regions with producing oil wells.

**Temporary Storage Tanks** – Although not quantified by Enbridge, a variety of other types of portable and fixed temporary oil storage tanks are also required for oil spill cleanup operations. As noted, mixed oil and water is collected by skimmers or vacuums and then pumped into nearby tanks or tank trucks. Next, this mix is transported from skimming and vacuuming sites to a larger fixed tank, that may or may not be at the processing facility. When a large amount of oil is spilled, the process of capturing oil at many locations and gathering it for final processing requires the use of large numbers of temporary tanks of many sizes.

One of the lessons learned from the Line 6b spill is that construction of dams to contain spilled dilbit may be far more effective than tactics that focus on removal of floating oil. The equipment and materials needed for dam construction is not the same as required for removal of floating oil from open water. There can be no doubt that responding to a major oil spill from a large pipeline presents substantial logistical challenges and requires a very large amount of personnel and equipment. Further, the types and pre-positioned locations of equipment are critical to limiting the damage caused by a spill and the overall success of a spill response, because an immediate rapid response limits both damage caused by the spill and the difficulty, cost, and effort of removing widespread oil.

The NTSB Line 6b Report found that Enbridge’s “initial containment efforts and tactics proved ineffective in preventing substantial quantities of oil from spreading and

traveling miles downstream of the rupture.”<sup>48</sup> The NTSB described how Enbridge crews ineffectively used oil spill containment tactics designed to stop the spread of oil floating on open water or slow moving rivers, rather than the spread of dilbit in fast moving creeks and rivers.<sup>49</sup> The NTSB found:

Enbridge crews primarily deployed sorbent booms in the fast-flowing Talmadge Creek, which, according to industry and Federal guidance, is an ineffective method of containing oil except in stagnant waters. Sorbent booms are generally used for small spills or as a polishing technique to capture sheen escaping from skirted oil booms, not as a principal containment method for a large release. Had more effective containment measures been placed at strategic locations along Talmadge Creek—such as installing plywood sheet underflow dams over the seven culvert pipe stream crossings located between the release site and the Kalamazoo River—less oil might have entered the Kalamazoo River.<sup>50</sup>

Moreover, Enbridge was fortunate because materials required for making a dam happened to be located at its pump station but not as part of its spill response inventory.<sup>51</sup>

In the final analysis, Enbridge’s response to its Line 6b spill was a planning failure. Enbridge operators misinterpreted data related to pumping dilbit, its spill response planners had prepositioned too little equipment and the wrong materials to respond to a dilbit spill, and its crews were poorly trained to respond to a dilbit spill. In fact, the Chair of the NTSB in summarizing Enbridge’s response is reported to have said, “Their employees performed like Keystone Kops and failed to recognize their pipeline had ruptured and continued to pump crude into the environment.”<sup>52</sup> But if Enbridge employees were the actors and Enbridge managers the directors of this tragedy, then as discussed below, PHMSA acted at its producer.

#### **B. NTSB Report on the Enbridge Line 6b Spill Highlights Significant Regulatory Perversions in PHMSA’s FRP Regulations and the Practical Impossibility of their Effective Implementation**

The NTSB Line 6B Report also examined the effectiveness of PHMSA FRP regulations. The NTSB found that PHMSA regulations do not “provide any specific guidance for the amount of resources that must arrive on the scene of a discharge.”<sup>53</sup> It

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<sup>48</sup> NTSB Line 6b Spill Report at 105.

<sup>49</sup> *Id.* at 106-07.

<sup>50</sup> *Id.* at 107.

<sup>51</sup> *Id.*

<sup>52</sup> Upstream Online, US: Enbridge like 'Keystone Kops' in spill (July 10, 2012).

<sup>53</sup> *Id.* at 109.

noted that PHMSA in its rulemaking for Part 194 had opted to let operators individually determine this amount. The NTSB also concludes that it is “improbable that PHMSA would be able to perform an adequate review of facility response plans or enforce Federal requirements that pipeline operators identify and ensure that adequate response resources are available to respond to worst-case discharges.”<sup>54</sup> Put another way, PHMSA’s response resource regulations are unenforceable. The NTSB also found that, “[e]ssentially, the regulations allow the pipeline industry to dictate the requirements of an adequate spill response and to determine whether those requirements have been met.”<sup>55</sup> As a consequence, communities along the pipeline route can expect no greater amount of spill response resources from TransCanada than those that TransCanada, in its sole discretion, believes is due them.

To demonstrate that meaningful standards are practicable, the NTSB compares PHMSA’s response resource regulations to those of the U.S.C.G. and the U.S.E.P.A. It concludes, “PHMSA’s regulatory requirements for response capability planning do not ensure a high level of preparedness equivalent to the more stringent requirements of the Coast Guard and the EPA,” and “PHMSA’s regulations for oil pipeline response planning are clearly inferior when compared to similar Coast Guard and EPA requirements.”<sup>56</sup> The NTSB recommended that “PHMSA amend 49 CFR Part 194 to harmonize onshore oil pipeline response planning requirements with those of the Coast Guard and the EPA.”<sup>57</sup>

The NTSB found that PHMSA has only 1.5 full-time employees managing about 450 response plans, far fewer than either the U.S. Coast Guard or U.S.E.P.A, despite the fact that PHMSA receives significantly greater funding from the Oil Spill Liability Trust Fund,<sup>58</sup> which, ironically, is not funded by dilbit shippers.<sup>59</sup> It also found that PHMSA had approved Enbridge’s FRP within two weeks of its receipt by the agency without comment and that only a “ cursory” review of the plan could have been conducted within this time period. The NTSB Line 6b Report does not state that the part of the Enbridge Lakehead System FRP applicable to the Line 6b, the Chicago Region Response Zone (attached as Exhibit 5), is comprised of 359 pages of information, and that this response zone is just one of four included in the entire FRP, which covers Enbridge’s entire U.S. pipeline system in an area that stretches from North Dakota to Michigan to Oklahoma.<sup>60</sup> Given the length and complexity of this document, it is almost certain that all PHMSA staff did was complete PHMSA’s Facility Response Plan Review form (attached as Exhibit 6) to confirm that the FRP contained all required parts without substantive review of any of them. Moreover, the NTBS Line 6b Report also found that PHMSA does “not perform on-site audits to verify the content and

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<sup>54</sup> *Id.*

<sup>55</sup> *Id.* at 113.

<sup>56</sup> *Id.* at 110.

<sup>57</sup> *Id.*

<sup>58</sup> *Id.* at 113.

<sup>59</sup> I.R.S. National Office Technical Memorandum 201120019 (Jan. 12, 2011) at 3 (“Accordingly, tar sands imported into the United States from Country by Company are not subject to the excise tax on petroleum imposed by § 4611.”)

<sup>60</sup> Enbridge Liquids Pipeline System (Lakehead System) FRP Cover Sheet at 4.

adequacy of plans before approving them. In contrast, both the Coast Guard and the EPA conduct on-site audits and plan reviews after the initial review and approval of the submitted plan.”<sup>61</sup> Thus, PHMSA in all likelihood just bean counts whether an FRP has all required parts, rubber stamps whatever pipeline companies’ submit, and then ignores FRP’s until the process repeats itself.

The NTBS report makes abundantly clear that PHMSA’s spill response regulations and its implementation of these regulations is a travesty of the OPA. In response to this evidence, the NTSB reported, “PHMSA stated that it plans to include a review of lessons learned when it reviews the Enbridge facility response plan due for renewal in 2015 or when Enbridge next amends its plan.”<sup>62</sup> This passive response is yet more evidence of PHMSA’s passive role in spill response planning.

Remarkably, the DSEIS ignores all of this evidence about the unreliability of PHMSA’s FRP administration and cites the NTSB report only in the context of its investigation into whether dilbit represents a greater threat than other types of oil.<sup>63</sup> As for the DSEIS’s conclusions about the Line 6b spill, it draws only the following two bland conclusions:

- “As the response to the Marshall Michigan Dilbit spill continues to mature and evolve, the lessons learned from the response and recovery efforts should be considered to facilitate the implementation of proper response planning and response strategies to improve the overall response to Dilbit spills.”
- “When developing the ERP, Kalamazoo River Spill lessons learned would be considered, including ensuring consultants are contracted as appropriate to facilitate a large-scale and prompt response; developing source containment plans including strategies and tactics; minimizing response times with appropriate equipment; identifying equipment resources required to respond to sunken and submerged oil, and ensuring personnel are appropriately trained.”

This language mirrors PHMSA’s utterly noncommittal and bureaucratically passive response to the NTSB.

If PHMSA’s implementation of the OPA is a travesty, then the DSEIS’s reliance on PHMSA’s administration of the KXL ERP as “recommended mitigation” is deeply cynical and represents profound bad faith with the Nebraskans threatened by KXL.

To rectify this breach of faith, the Administration must require TransCanada to submit a draft of the Keystone System FRP that includes all of the changes proposed by TransCanada related to KXL, accept public comment on this draft pursuant to NEPA, and then within the DSEIS commit to specific substantive improvements to the FRP.

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<sup>61</sup> *Id.*

<sup>62</sup> *Id.* at 112.

<sup>63</sup> DSEIS at 4.13-7.

## **V. The DSEIS Fails to Analyze the KXL FRP as Required by NEPA**

The DSEIS admits that it does not consider KXL-specific oil spill response requirements because these are included only in the FRP, which the DSEIS implies cannot be included in this NEPA process due to legal and practical constraints. Instead, the DSEIS includes (1) a general discussion of oil spill planning in Section 4.13.5; and (2) a mocked up ERP provided by TransCanada that is based on the Keystone Pipeline System FRP for its existing pipelines. The information provided in these documents is academic, non-specific, and/or unsupported by substantial evidence, and therefore is completely inadequate under NEPA.

### **A. The DSEIS Is Fundamentally Flawed Because it Provides and Discusses None of the Changes to the Keystone Pipeline System FRP Required to Operate KXL**

Because the DSEIS takes the position that the FRP need not be analyzed as part of the DSEIS, the DSEIS does not include any of the actual FRP or analyze any of the changes to the Keystone Pipeline System FRP required for operation of KXL. As a consequence, it is impossible for us, any other commenter, or even any federal or state agency to comment on the FRP as it applies to KXL. In particular, since the DSEIS asserts that the FRP is not available for review, it is impossible for PHMSA to conduct a NEPA analysis for its review of TransCanada's FRP. Therefore, the DSEIS's review of PHMSA's major federal action is fundamentally flawed. As well, to the extent that the FRP serves as mitigation for the DOS's Presidential Permit decision, other major federal actions, and the project as a whole, the DSEIS fails to provide any basis for comment on or analysis of critical mitigation of great public concern.

### **B. The Spill Response Information Provided in the DSEIS Is Not Sufficient Under NEPA**

DEIS Section 4-13.5.2, Spill Response, bases its analysis on a document prepared by TransCanada called an "Emergency Response Plan" that is included in Appendix I ("App. I ERP"), even though this document has no legal authorization separate from that for TransCanada's FRP. Not surprisingly, the generic nature of TransCanada's mocked up plan is strongly reflected in DEIS Section 4-13.5.2.

#### **1. DSEIS Section 4.13.5.2 is almost entirely generic and the information provided is insufficient for a NEPA analysis**

DSEIS Section 4.13.5.2 includes almost nothing but general descriptions of standard spill response practices, as well as descriptions of general legal requirements, spilt up into the following sections:

- Section 1 – Notification Procedures
- Section 2 – Response Actions
- Section 3 – Response Teams

- Section 4 – Spill Impact Considerations

**Notification** – The notification procedures section is merely a summary of federal OPA notification requirements applicable to all crude oil pipelines. Although TransCanada has its own reporting procedures, control center, and command structure, so do all other oil pipeline operators, and all of them must comply with the same general OPA FRP requirements. Since the DSEIS does not discuss TransCanada’s internal notification requirements in any detail, the descriptions included are entirely generic and provide no basis for critical analysis of TransCanada’s specific KXL FRP changes required to comply with OPA notification standards.

The DSEIS reports extensively on a very simple information drill run by TransCanada for its Keystone System FRP that required notification in accordance with OPA regulatory requirements (there are no detailed requirements for notification procedures in PHMSA’s PSA regulations). It is not clear if this drill was announced or unannounced. The DSEIS brags that the objectives of the drill were accomplished in 17 minutes, thereby implying that the pipeline would be shut down and all required parties notified within 17 minutes of a spill. This being said, an actual site inspection was not performed as part of the drill and neither was an actual shutdown. As made clear by the Line 6b spill, response delay results primarily from operator error, the length of time it takes to confirm a spill on-site, and the time it takes to mobilize sufficient response equipment and personnel, none of which were tested by this drill. The drill merely confirmed that TransCanada staff can read call lists, dial telephones, and send faxes.

**Response Actions** – This section is entirely generic and could apply to any pipeline and any pipeline operator. Importantly, this discussion includes no Nebraska-specific information, such as planning response actions for critical Nebraska resources, including but not limited to the Niobrara and Platte Rivers. There is no project-specific information. Instead, the DSEIS states that response details would be included in a “Project-specific ERP to facilitate rapid response in the event of an oil release,”<sup>64</sup> which would be the OPA FRP, thereby confirming that the DSEIS itself contains no project-specific information.

**Response Teams** – This section also contains entirely generic information, to the extent that “Keystone” and the names of the pipelines referenced in the discussion could be changed to “Enbridge” and its pipelines and the DSEIS discussion would still be entirely applicable. Moreover, this section of the DSEIS refers extensively to PHMSA’s OPA regulations in 49 C.F.R. Part 194 and recognizes that all project-specific information would be included in this document, thereby again confirming that there is only one spill response plan prepared by TransCanada and it is the OPA FRP. The DSEIS mistakenly asserts that the “Keystone ERP would be used as a template for the Keystone XL ERP,” because the FRP for KXL would not be a separate document but instead would be a change to the existing Keystone Pipeline System FRP. Thus, the existing FRP would not serve as a “template” for a new document.

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<sup>64</sup> SDEIS at 4.13-71.

This discussion also references PHMSA's meaningless equipment requirement provision, 49 C.F.R. § 194.115, which specifies response times for equipment, but provides no standards for calculation of the amount of equipment required or calculation of the time required to transport the equipment to site. The DSEIS merely refers to "necessary resources."<sup>65</sup> Given the NTSB report's harsh criticism of this meaningless regulation, reliance on it provides no assurance that TransCanada will in fact have adequate response resources pre-positioned appropriately to mitigate the environmental impacts of a KXL rupture. As a consequence, the DSEIS fails to include any discussion of the amount and types of spill response equipment in or near Nebraska, the deployment times for this equipment, or the number and location of personnel available to operate this equipment. Moreover, the DSEIS's acknowledgement that it contains no information about project-specific equipment and personnel means that it is impossible to comment meaningfully on TransCanada's actual ability to respond to a KXL oil spill in Nebraska.

The DSEIS does acknowledge that "worst case discharge" means more than merely calculating the amount of oil released, because it states that a worst case discharge analysis "consists of calculating and identifying where the WCD may potentially occur, plans to ensure that adequate personnel and equipment resources are available to respond, and scenario development."<sup>66</sup> This being said, the DSEIS provides no estimate of the worst case discharge amount, the approximate locations of discharges, the amount of equipment and personnel required for such response, the potential geographic spread of a spill comprised of this amount of oil, or any project-specific scenario development. The DSEIS's discussion of geographic scope is entirely academic and includes no quantified estimate for how far and how fast an oil spill might spread in a worst case discharge scenario.<sup>67</sup> Given that both the U.S.C.G. and the U.S.E.P.A. provide methodologies for measuring such geographic impact,<sup>68</sup> the DSEIS should estimate this, as well, particularly with regard to all "high volume areas" in Nebraska, such as the Niobrara and Platte Rivers.

The DSEIS discusses equipment only to the extent that it cut and pasted a generic equipment list that contains no quantification into DSEIS pages 4.13-72 and 73. Again, this generic equipment list identifies the types of equipment that all petroleum pipelines utilize in the event of a spill.

Sadly, the DSEIS Section 4.13 fails to discuss the Enbridge Line 6b spill in any detail and instead states in passive voice:

When developing the ERP, Kalamazoo River Spill lessons learned would be considered, including ensuring consultants are contracted as appropriate to facilitate a large-scale and

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<sup>65</sup> SDEIS at 4.13-72.

<sup>66</sup> SDEIS at 4.13-73.

<sup>67</sup> SDEIS at 4.13-19-20.

<sup>68</sup> The U.S.C.G. and U.S.E.P.A. oil spill distance calculations are found respectively at 33 C.F.R. § 154.1035(b)(4)(iii); 40 CFR Part 112 Appendix C §§ 1.5, 2.5, 2.6, 5.4.

prompt response; developing source containment plans including strategies and tactics; minimizing response times with appropriate equipment; identifying equipment resources required to respond to sunken and submerged oil, and ensuring personnel are appropriately trained.

Merely stating that knowledge gained would be incorporated into the FRP is insufficient. The lessons of the Line 6b Spill have been provided by the NTSB. Therefore, the DSEIS must consider the specific lessons learned in its analysis of the KXL FRP and demonstrate how TransCanada is actually incorporated these lessons into the FRP. Absent such detail, it is impossible for commenters to determine if TransCanada and PHMSA have in fact learned any lessons and what these lessons might be.

**Spill Response Considerations** – This section is completely generic to the point that it could have been cut and pasted from an “oil spill 101” fact sheet. There is nothing in this section that allows meaningful comment on TransCanada’s FRP.

**2. *The cherry-picked sections of TransCanada’s mocked up “Emergency Response Plan” provide no meaningful basis for NEPA review of oil spill response planning for KXL***

There appears to be no requirement in federal law for a spill response plan to remediate crude oil spills from KXL other than the OPA FRP. As such, the document submitted by TransCanada is not required by law and is not subject to approval by PHMSA pursuant to any formal statutory requirement. Since it is not the FRP required by the OPA, it cannot substitute for the FRP in a NEPA review of the FRP. This being said, we comment on this document for what it is worth.

Initially we note that the contents of the App. I ERP were selected based on DOS Information Request 5.6.5, the text of which is included in TransCanada’s response to the Information Request, which response is included in Appendix I as a cover sheet for the App. I ERP. The DOS information request states: “We understand that under current regulations, Keystone will not be required to submit an Emergency Response Plan (ERP) until 6months prior to Project operation.” (Emphasis added.) We note that this statement assumes a completely different regulatory timeframe than stated at DSEIS page 4.13-68, which states: “PHMSA regulations require approval for an ERP for the proposed Project at least 6 months prior to beginning pipeline operation.” (Emphasis added.) Thus, the DSEIS states that the App. I ERP must be approved at least six months prior to operation, whereas the Information Request states that the App. I ERP need not be submitted until 6 months before the start of operations. The DOS should actually review applicable federal regulations, determine what they say, and cite to them.

The DOS information request defines its purpose and scope as follows:

Keystone should provide a draft ERP that reasonably describes the key procedures, coordination activities, anticipated contacts, equipment to be used, possible cleanup activities, and other information needed to understand how Keystone would respond to an accidental release of crude oil during operation of the Project. This draft could be developed using previously approved EPR's, such as the ERP for the Keystone Pipeline Project.

In response, TransCanada states:

Attached are responsive portions of the Keystone Pipeline Emergency Response Plan. This plan will be updated to include Keystone XL-specific emergency preparedness and emergency response information prior to Keystone XL project commencing operations.

Thus, TransCanada has not provided a draft KXL plan, but rather portions of a Keystone Pipeline emergency response plan that TransCanada says will be updated to include KXL-specific information. This is confirmed by the fact that even though the App. I ERP has no title sheet explaining what it is, it is entitled "TransCanada-Keystone" (not "Keystone XL") in each footer. DOS apparently found TransCanada's response acceptable, thereby essentially letting TransCanada determine the scope of spill response information that should be made available to the public.

This procedure is odd and inappropriate since PHMSA has in its files the current, complete, and formally approved OPA FRP for the Keystone Pipeline System, such that PHMSA has the ability and as a cooperating agency the legal responsibility to provide this information for the DSEIS. Although the existing OPA FRP is not by itself sufficient to allow meaningful comment, its disclosure is nonetheless necessary since TransCanada intends to update it to include planning for KXL. The DOS's deference to TransCanada and PHMSA's failure to provide information is also strange in light of the fact that PHMSA has previously disclosed, pursuant to Freedom of Information Act Requests, January 2009 and September 2009 versions of TransCanada's entire actual FRP ("January 2009 and September 2009 Keystone System FRPs" attached as Exhibits 7 and 8, respectively),<sup>69</sup> the latter of which is only one year older than the document provided by TransCanada.

The DOS should explain why it relied on TransCanada to provide a document of dubious regulatory authority instead of requesting that PHMSA provide a formal plan approved by and in its possession. Moreover, the App. I ERP is dated September 2010 and was provided to DOS on September 3, 2010, making it now over two and a half years old. As such, there is little wonder that the DSEIS fails to apply the Enbridge Line 6b spill lessons learned, because the spill happened a little more than one month before

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<sup>69</sup> Both of versions of the FRP specifically cite 49 C.F.R. Part 194 as authority in Sections 1.2. As such, they are prepared and approved pursuant to OPA requirements.

TransCanada submitted the App. I ERP to DOS. As such, that the App. I ERP could contain no “lessons learned” from this spill, because the lessons were not clear at that time. Now they are. Thus, TransCanada has provided no information indicating that the Line 6b spill has resulted in any changes in its spill response planning.

We note that TransCanada’s response to the DOS Information Request admits that the App. I ERP has no KXL-specific information in it and that this document applies exclusively to existing Keystone System pipelines. As such, it cannot serve as a basis for meaningful NEPA comment on the KXL FRP, any more than providing TransCanada’s Application for a Presidential Permit for the first Keystone Pipeline would provide a basis for NEPA comment on its KXL Presidential Permit Application.

The App. I ERP includes the following sections:

- Section 1 – Notification Procedures
- Section 2 – Response Actions
- Section 3 – Response Teams
- Section 4 – Spill Impact Considerations
- Appendix A – Response Equipment/Resources
- Appendix B – Disposal Plan
- Appendix C – Basics of Oil Spill Response

Each of these sections is discussed in turn.

### ***Section 1 – Notification Procedures***

The notifications section includes a general set of internal and external notification protocols and lists of agency names and phone numbers for external notifications. It is generally similar to the notification sections in the January and September 2009 FRPs, but the internal notifications appear to have been changed to require that all reports of a spill to go through the Keystone Oil Control Center (the system-wide controller for all Keystone System pipelines) rather than providing phone numbers for direct calls to spill contractors. The external communications section is similar, however, the App. I ERP omits contacts in North Dakota but includes them for Texas and Montana, which indicates (1) that TransCanada’s spill response planning in 2010 included the Gulf Coast Segment and KXL such that it probably also long ago drafted an FRP for KXL; and (2) the possibility of conflicting requirements between plans if in fact TransCanada prepares multiple spill response plans for approval.

With regard to standardization, both the U.S.C.G. and U.S.E.P.A. require standardized FRP formats so that the EPA On-Scene Coordinator and other EPA staff can quickly access information regardless of the company or facility that provides it, as well as to ensure some uniformity of response requirements.<sup>70</sup> In contrast, PHMSA has only a recommended format contained in Appendix A to Part 194. Given the significant

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<sup>70</sup> 33 C.F.R. § 154.1030; 40 C.F.R. Part 112, Subpart D, Appendix F.

differences between TransCanada's prior FRPs and FRPs submitted by Enbridge, it appears that PHMSA leaves format largely to the discretion of the consultants who draft the plans for pipeline operators.

## **Section 2 – Response Actions**

The information in this section is entirely generic and could be applied to any pipeline in the U.S. It appears to be boilerplate printed out by an oil spill consultant and therefore provides no assurance that TransCanada has thought about how to customize its current FRP for use along the KXL route in Nebraska. In fact, the word "Keystone" never appears in the text and the word "TransCanada" appears only twice as a general reference. There are no geographically specific response actions or any other project-specific details, such as specific planning for spills into the Niobrara or Platte Rivers. The following are examples of the lack of specificity or inapplicability that characterizes this document:

- The "Earthquake Specific Response" section focuses almost entirely on workplace safety (e.g., "If you are indoors, stay there. Do not run outside.") and refers to pipelines only to the extent to say that they should be patrolled after an earthquake. There is no discussion about the complications to spill response that might result from an earthquake or how the earthquake risk in Nebraska impacts spill response planning.
- The "Severe Winter Storm Specific Response" section is only about a quarter of a page comprising seven bullet points, all but two of which are related to paying attention to the weather. The pipeline-specific bullet points include checking for storm damage and making any necessary repairs. The App. I ERP contains no discussion about the severe challenges of mobilizing resources, conducting outdoor spill response, or housing and feeding thousands of workers in rural Nebraska in the summer or winter, especially during blizzards, both of which would be logistically challenging.
- The App. I ERP includes a "Volcanic Eruptions Specific Response" section, even though the nearest "active" volcano is the ancient caldera at Yellowstone National Park approximately 300 miles from the closest point on KXL.<sup>71</sup> However, this volcano hasn't erupted in approximately 640,000 years.
- The "Release to Groundwater Specific Response" does not mention any particular groundwater, such as the Ogallala Aquifer, or location-specific considerations related to groundwater.

Further, all of the brief oil containment, recovery, and disposal/waste management discussion is entirely generic and could be lifted from a general oil spill response training manual. There is no project information included.

Thus, Section 2 of the App. I ERP contains nothing but contractor-generated boilerplate that could be printed out for any pipeline in the U.S. As such, nothing in this

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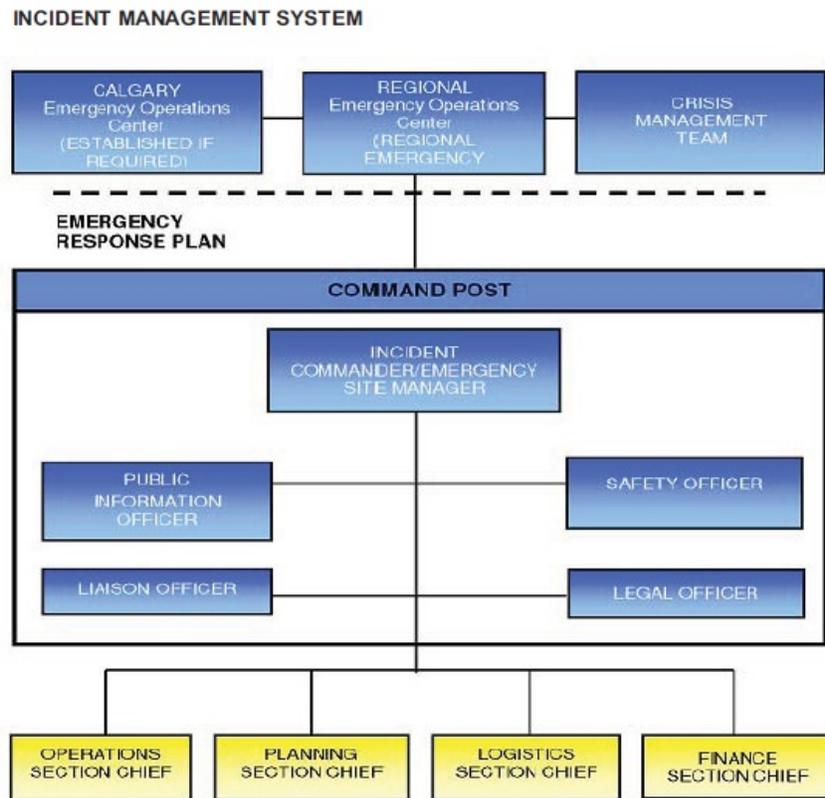
<sup>71</sup> [http://www.nationalatlas.gov/dynamic/dyn\\_vol-us.html](http://www.nationalatlas.gov/dynamic/dyn_vol-us.html).

section provides project-specific information on which substantive comments on oil spill response planning in Nebraska for KXL could be premised.

**Section 3 – Response Teams**

Section 3 is also almost entirely generic. It is comprised primarily of descriptions of management hierarchies and job descriptions, most of which do not appear to be specific to TransCanada and in fact may reflect an incident response hierarchy that a contractor would establish. Figure 3.1, below, includes the most comprehensive view of the App. I ERP’s description of command structures.

**FIGURE 3.1  
INCIDENT COMMAND SYSTEM**



As can be seen, with the exception of the word “Calgary” in the upper left-hand box, the rest of the schematic could apply to nearly any incident command structure for any facility anywhere. The personnel job descriptions are also entirely generic and appear to be contractor boilerplate and include no project or geographically specific directions.

As a consequence of its generic nature, Section 3 provides no basis for meaningful comment on TransCanada’s KXL OPA FRP or its project-specific plans in Nebraska.

#### **Section 4 – Spill Impact Considerations**

Section 4 of the App. I ERP is entirely generic. It contains no statements specific to KXL or any other particular pipeline and no geographically specific information about impact considerations in Nebraska, but instead consists entirely of basic oil spill response information such as might be included in a beginning oil spill responder class. Because this section contains no project-specific information, it is impossible to comment on the merits of TransCanada's KXL FRP as it relates to Nebraska.

#### **Appendix A – Response Equipment Resources**

Appendix A contains some pipeline-specific equipment information for TransCanada's existing pipelines in the form of: (1) descriptions of TransCanada's self-owned equipment; and (2) the equipment owned by its spill response contractors. This information is similar to the information provided in the January and September 2009 FRPs and is only slightly newer. In fact, the Company Owned Equipment List in Figure A.1 appears to be identical to that found in the 2009 Keystone Pipeline System FRPs, and the identified spill response contractor is the same. Therefore, the analysis in the Great Plains at Risk Report continues to be accurate and should be addressed by the DOS. Only the major deficiencies in Appendix A are discussed here.

The App. I ERP states that TransCanada owns one trailer in each of its five response zones for its existing pipeline system.<sup>72</sup> The App. I ERP does not describe these response zones or state where these trailers are located, but the response zone definitions and the trailer location (trailer location provided for only response zone 1) are provided by the 2009 Keystone System FRPs. The response zones are:

<b>Zone</b>	<b>States</b>	<b>Trailer Locations</b>
1	North Dakota, South Dakota, Nebraska	Yankton, SD
2	Kansas, Missouri, Illinois	?
3	Cushing Extension, Kansas, Oklahoma	?

The two other zones identified in the App. I ERP are likely Canadian Zones. Therefore, the App. I ERP does not include spill response equipment commitments for KXL. In addition, TransCanada maintains one smaller trailer per response zone containing primarily oil spill boom. As detailed in the Great Plains at Risk report, for each response zone, the major equipment acquired by TransCanada includes: one response trailer, one boom trailer (together the trailers contain 2,000 feet of different types of boom), two boats, 298 bbls of temporary storage capacity, and two skimmers. TransCanada has not identified the locations of the tow vehicles for these trailers or related response

<sup>72</sup> App. I ERP App. A Figure A.1.

personnel, even though the location of a tow vehicle and personnel at the time of a spill can significantly impact how quickly a trailer can arrive at a spill site.

The NTSB found that this amount of equipment was wholly inadequate to serve as the first waive (Tier I) resources for the Line 6b spill. This being said, Enbridge had far more equipment prepositioned than is planned by TransCanada, because Enbridge maintains spill response equipment at each of its pump stations as well as regional response trailers and equipment caches. In fact, since the Line 6b Spill happened close its Marshall Pump Station, Enbridge had its equipment close at hand, but it still proved to be entirely inadequate. Therefore, it appears that TransCanada has not learned any lessons from the Line 6b spill, or are not willing to share what they have learned. Moreover, the App. I ERP does not indicate that any of TransCanda's equipment is located in Nebraska.

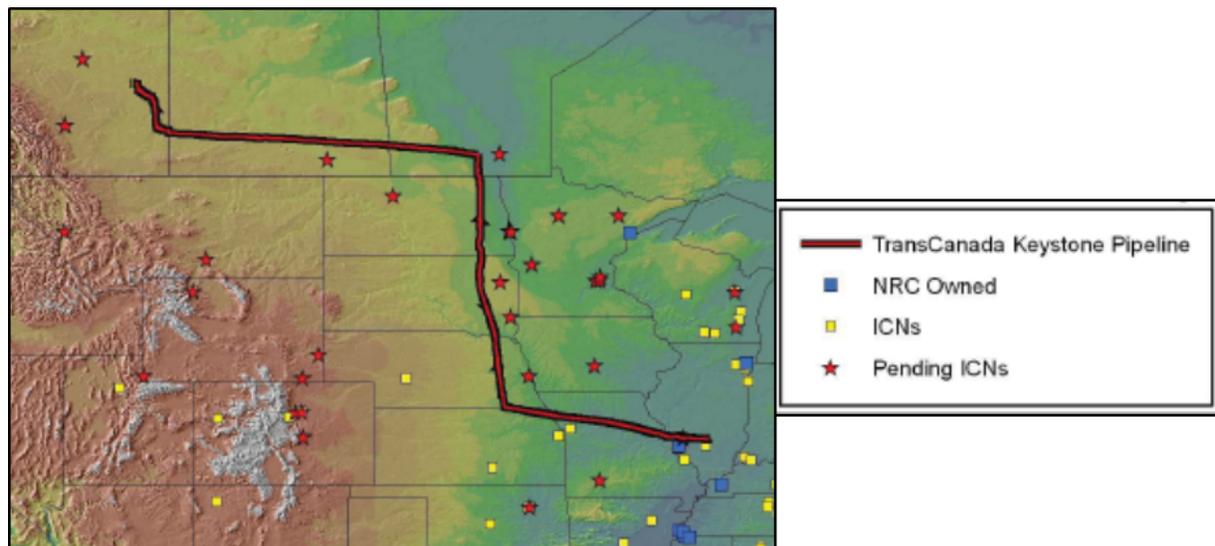
TransCanada's primary spill response contractor is National Response Corporation ("NRC"). The App. I ERP does not contain lists of response resources available to NRC. Instead, the App. I ERP includes Figure A.2 that shows NRC's U.S.C.G. Oil Spill Response Organizations ("OSRO") classification.<sup>73</sup> It claims to be certified for spills in all types of waters except the Great Lakes. Figure A.3 confirms that NRC's OSRO classification is determined by the U.S.C.G., and also shows the equipment that NRC claims to have and the time it would take it to transport this equipment to a spill from KXL. TransCanada assigns NRC's classification to each response zone, even though the USCG OSRO classification is not determined for each response zone, but rather is assigned to USCG Upper Mississippi River Sector as a whole (see map below), which includes all of the states through which KXL would pass.

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<sup>73</sup> The introductory text for this Figure states: "The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments."



App. I ERP Appendix A also provides a map (excerpt below) of the locations of equipment NRC owns as well as the locations of its subcontractors.



This map shows that NRC itself owns no equipment in Nebraska, and that it has only one subcontractor in Nebraska. This lack of equipment in Nebraska is confirmed by the NRC website, which shows no NRC-owned equipment in Nebraska.<sup>74</sup> Since NRC primarily specializes in coastal cleanups, this is not surprising. It appears that NRC no longer lists its subcontractors on its website; however, the Great Plains at Risk Report shows that NRC had few subcontractors along the KXL route as of 2009, and the NRC equipment map, above, indicates that it had fewer contractors along the route in 2010 than it did in 2009.

Finally, the extent of NRC's preparation for an oil spill along the KXL proposed route is also called into question by the low cost of NRC's services. According to TransCanada's FERC Form No. 6: Annual Report of Oil Pipeline Companies and Supplemental Form 6-Q: Quarterly Financial Report (April 15, 2011) (attached as Exhibit 9), in 2010, TransCanada paid NRC only \$112,500 for its services. Since payments to spill response contractors are akin to insurance, this is very cheap insurance suggesting that TransCanada is not paying for much upfront investment by NRC. In contrast, TransCanada's Annual Form 6 for 2011 shows no payment to NRC greater than \$100,000 (the lower limit for reporting).<sup>75</sup>

Although not listed in Appendix A, the App. I ERP identifies two additional spill response contractors, O'Brien's Response Management Inc. in Slidell, Louisiana, and

<sup>74</sup> <http://www.nrc.com/Services/Pages/Equipment.aspx>. NRC does not provide information about its subcontractors' equipment online.

<sup>75</sup> TransCanada 2011 FERC Form No. 6: Annual Report of Oil Pipeline Companies and Supplemental Form 6-Q: Quarterly Financial Report (April 15, 2011) at 351, detail at 604.1. TransCanada's 2012 annual Form 6 filing does not include any data for payments for services data. Therefore, it appears that that either FERC does not require or make public, or TransCanada no longer provides data, for page 351, Payments for Services Rendered by Other than Employees.

ENSR Corporation in Fort Collins, CO. Since O'Brien's describes itself as a response management firm (for example, it drafted the App. I ERP), and ENSR is an environmental engineering firm, and because neither of these firms are identified as providing equipment, it is likely that TransCanada does not rely on their owned or contracted equipment to show compliance with federal law.

Thus, the App. I ERP contains no evidence that TransCanada or its spill response contractors have any significant amount of spill response equipment within hundreds of miles of the proposed KXL route. Moreover, this document's reliance on a U.S.C.G. oil spill response rating as proof that a company has adequate spill response resources in Nebraska is a strong indication that TransCanada's oil spill response allegations are completely unfounded. Given that the DSEIS admits that nothing in the App. I ERP is project-specific to KXL, all of the DSEIS's assertions that TransCanada is prepared to respond to an oil spill simply have no meaningful evidentiary basis within the DSEIS. Moreover, this lack of information means that it is not possible to comment meaningfully on TransCanada's actual oil spill response capability, except to note that the limited evidence provided in the DSEIS indicates that TransCanada has little to no demonstrated response capability in Nebraska.

### ***Appendices B and C – Disposal Plan and Basics of Oil Spill Response***

Both of these sections are completely generic and provide no project-specific information, such as actual locations of potential disposal sites or that application of spill response principles to locations along the proposed KXL route. Therefore, they provide no basis for meaningful comment on the OPA FRP.

### **3. The DSEIS fails to consider critical spill response issues**

As poor as the information in the DSEIS is, it also fails because it does not analyze critical oil spill response issues, including a number of issues highlighted by the NTSB Line 6b Report.

#### ***a. No analysis of site-specific spill response considerations***

Success or failure of spill response is highly dependent on local conditions, yet the DSEIS's analysis of spill response fails to provide or discuss any Nebraska-specific information as it relates to federally required spill response. This omission is critical because it does not allow comment on spill response planning for sensitive resources. Yet, TransCanada has available to it detailed maps, called "Environmental Sensitivities Maps," that it uses in its spill response planning. A list of these maps is included in Figure 6.2 of the 2009 Keystone System FRPs.<sup>76</sup> These maps show sensitive resources together with the pipeline and surrounding geographic features. Inclusion of these maps in the DSEIS would allow citizen comment and questions on TransCanada's specific spill response plans for areas of special concern.

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<sup>76</sup> Commenters gained access to a limited set of these maps through a FOIA request, but they are not attached due to their size.

*b. No analysis of worst case discharge methodology, especially relative to remote spill detection management failures*

As previously discussed, many oil spills from pipelines, including major spills such as the Line 6b spill, are not detected first through central control center analysis of SCADA data. Instead, spills are as likely to be detected by citizen reports to local authorities. As amply demonstrated by the Line 6b spill, pipeline operators do not always correctly interpret SCADA data with the result that a pipeline operator may continue pumping crude oil for a substantial amount of time after a rupture occurs. Yet, the DSEIS fails to consider the impact of a SCADA system management failures on worst case discharges. PHMSA regulations require that KXL use the following methodology to determine the volume of a worst case discharge:

The pipeline's maximum release time in hours, plus the maximum shutdown response time in hours (based on historic discharge data or in the absence of such historic data, the operator's best estimate), multiplied by the maximum flow rate expressed in barrels (cubic meters) per hour (based on the maximum daily capacity of the pipeline), plus the largest line drainage volume after shutdown of the line section(s) in the response zone expressed in barrels (cubic meters).<sup>77</sup>

This regulation does not define the term "maximum release time." The 2009 Keystone Pipeline System FRPs describe it TransCanada's methodology as follows:

The Worst Case Discharge for this response zone was calculated electronically using elevation data, pipeline statistics, and designed operational levels. The first calculation completed was the volume released prior to the shutdown of the pipeline system. This volume is noted as "Pumping Rate Volume" and is equal to 8,740 barrels. Using the designed operational levels, the pumping rate volume is calculated by taking the pumping rate of 662,400 barrels per day and multiplying by the shutdown time of 19 minutes. The 19 minutes of shutdown time consists of 10 minutes of evaluation time, where the controllers decide that there is a problem and the line needs to be shut down, 9 minutes of pump station shutdown, which must be completed in a certain order to prevent damage to the system. To ensure that the volume is not underestimated, the 19 minutes of shutdown time is multiplied by the full pumping rate, 460 barrels per minute, even though, as pump stations are shut

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<sup>77</sup> 194.105(b)(1).

down the rate will decrease throughout the 9 minutes of shutdown.

Thus, TransCanada assumes 10 minutes of “evaluation time,” during which operators determine there is a rupture, and 9 minutes of “shutdown time,” during which operators turn off pumps.<sup>78</sup>

It is clear that TransCanada’s methodology assumes no operator error or delay, such that its “evaluation time,” which is the term it appears to use instead of “maximum release time,” is not the “maximum” time but rather the expected time assuming no operator error or equipment malfunctions.

Due to the importance of the worst case discharge volume to spill response planning, the DEIS should analyze the “maximum release time” for KXL considering the possibility of operator error and equipment malfunctions.

*c. No analysis of dilbit spill response capability*

The NTSB Line 6b Report highlighted the difficulty and expense of removing submerged bitumen leftover after the lighter elements of the spill dilbit had either evaporated and separated into or on the water column and/or for the bitumen to weather so as to become heavier than water. Due to its failure to anticipate the tendency for the heavy components of dilbit to sink, the Enbridge Line 6b FRP completely failed to plan for removal of sunken oil even though the likelihood of this being necessary was undoubtedly known before the spill. The importance of planning for dilbit spills is one of the critical “lessons learned” from this spill.

Given the extensive nature of the DSEIS’s analysis of the physical and chemical nature of dilbit found in Section 3.13, it is odd that the DSEIS failed to consider the impact of dilbit spills on spill response and cleanup activities in detail. Removal of sunken oil requires dredging, either using machinery or hand tools. In either case, such activities severely impact benthic habitats and displace large quantities of sediment into the water column. As noted by the U.S.E.P.A. on-scene coordinator in its response to the Line 6b Spill, removal of submerged oil risks displacing toxic chemicals in aquatic superfund sites or other toxic waste accumulations. Since removal of submerged oil can have substantially more environmental impacts than removal of floating oil, the DSEIS must analyze these impacts. The DSEIS fails to evaluate any of the increased impacts or risks to water quality that would result from a spill of dilbit into waters in Nebraska.

Although the DSEIS identifies some of the impacts and challenges caused by submerged dilbit,<sup>79</sup> it fails to discuss or evaluate TransCanada’s actual capacity to remove sunken oil. Instead it says:

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<sup>78</sup> 2009 Keystone Pipeline System FRPs, Appendix B, Worst Case Discharge Analysis and Scenarios, Response Capability Scenarios at 3, 7, 11, 19.

<sup>79</sup> SDEIS at 4.13-60.

As the response to the Marshall Michigan Dilbit spill continues to mature and evolve, the lessons learned from the response and recovery efforts should be considered to facilitate the implementation of proper response planning and response strategies to improve the overall response to Dilbit spills.<sup>80</sup>

When developing the ERP, Kalamazoo River Spill lessons learned would be considered, including ensuring consultants are contracted as appropriate to facilitate a large-scale and prompt response; developing source containment plans including strategies and tactics; minimizing response times with appropriate equipment; identifying equipment resources required to respond to sunken and submerged oil, and ensuring personnel are appropriately trained.<sup>81</sup>

Then the DSEIS makes the following general recommendations about future spill response planning:

The emergency response plan and oil spill response plan should address a submerged oil as well as floating oil in a surface water release scenario. The USDOT Pipeline Response Plan should be reviewed in coordination with USEPA and include contingency plans to address a submerged oil response and cold weather response. Section 4.13.5.2, Spill Response, focuses on a traditional oil spill response and not a strategy to address submerged oil or cold weather.

Pre-positioned response assets should include equipment that could address submerged oil. Response strategies, such as pre-positioning of equipment to address submerged oil should be considered and may be fine-tuned with USEPA consultation.

Spill drills and exercises should include strategies and equipment deployment to address floating and submerged oil.<sup>82</sup>

Since the OPA FRP must be reviewed under NEPA, the DSEIS may not simply make general statements about possible impacts and provide general recommendations for future action. Instead, it must analyze the impact of submerged oil spills on the types of aquatic habitats crossed by the proposed KXL route, the impacts of submerged oil response activities on the environment, and TransCanada's actual plans and capacity to

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<sup>80</sup> *Id.*

<sup>81</sup> DSEIS at 4-13.73.

<sup>82</sup> DSEIS at 4.13-80.

remove submerged oil. The lessons have been learned from the Line 6B Spill, which happened almost three years ago, such that the DSEIS can no longer simply defer consideration of these lessons to some undetermined future date. Instead, it must incorporate the best current knowledge into its impact and mitigation analyses.

*d. No analysis of spill response plans in sparsely populated areas and during all seasons*

Most of the KXL's proposed route passes through sparsely populated areas. This fact has a number of substantial impacts on spill response, including: (1) a reduced likelihood of rapid citizen discovery of spills; and (2) an increase in logistical challenges related to housing and feeding the thousands of response personnel required for response to a major spill. Unlike the Line 6b Spill, which was located in and near densely populated cities and towns, most of the proposed route for KXL through Nebraska is sparsely populated, with the result that any response to a major spill would quickly overwhelm local infrastructure. The extremely small amount of local infrastructure along the route is a critical limiting factor for spill response, especially during winter time. A spill response would require either establishment of work camps, as TransCanada intends to do during construction, or reliance on very long commutes that would complicate deployment and decrease spill response efficiency. TransCanada has disclosed its planning for worker camps during construction in Nebraska, but provides no information about how it would house and feed oil spill response personnel and how long it would take to establish necessary infrastructure to do so. Unlike construction planning that can avoid winter and adverse spring and fall weather, a spill response must be implemented regardless of the season or weather. Therefore, the DSEIS should fully analyze TransCanada's plans, equipment, and resources needed to respond to a crude oil spill in sparsely populated areas in all seasons in Nebraska.

*e. No analysis of compliance with the National Contingency Plan or Area Contingency Plans*

The OPA requires that the OPA FRP be consistent with the National Contingency Plan ("NCP") and applicable Area Contingency Plans ("ACP"), which for KXL in Nebraska includes the Region 7 ACP. The DSEIS contains no discussion of the consistency of TransCanada's response planning with the NCP and Regions 7 ACP. The App. I ERP provide no detailed discussion about TransCanada's efforts to ensure that its oil spill response planning is consistent with the NCP or the Regions 7 and 8 ACPs. Instead, it just states: "A thorough examination of published Area Contingency Plans (ACPs) was conducted to identify sensitive areas in all the response zones."<sup>83</sup> The App. I ERP also requires consultation of the applicable ACP as a spill response activity<sup>84</sup> and states that the TransCanada "may" consult the applicable ACP to determine "environmental/socio-economic sensitivities."<sup>85</sup> These references to

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<sup>83</sup> App. I ERP at 4-18.

<sup>84</sup> *Id.* at 2-7.

<sup>85</sup> *Id.* at 4-3.

environmentally sensitivity planning do not cover the full scope of the NCP and ACP, and are too vague to demonstrate “consistency.” Thus, the DSEIS contains no meaningful evidence demonstrating that TransCanada’s spill response planning complies with the OPA through a showing consistency with the NCP and Regions 7 ACP.

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<sup>v</sup> Swift, Anthony. "Clinton's tar sands pipeline 'safety conditions' are smoke and mirrors." NRDC Switchboard. 19 August 2011. Available: [http://switchboard.nrdc.org/blogs/aswift/ntons\\_tar\\_sands\\_pipeline\\_safet.html](http://switchboard.nrdc.org/blogs/aswift/ntons_tar_sands_pipeline_safet.html)

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