BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION)
OF TRANSCANADA KEYSTONE)
PIPELINE, LP FOR ROUTE APPROVAL)
OF THE KEYSTONE XL PIPELINE)
PROJECT PURSUANT TO THE MAJOR)
OIL PIPELINE SITING ACT,)

INTERVENORS

APPLICATION NO. OP-003

OBJECTION TO, AND MOTION IN
LIMINE TO EXCLUDE EVIDENCE,
SUBMITTED BY INFORMAL
INTERVENORS

Applicant, TransCanada Keystone Pipeline, LP ("Keystone"), objects to and moves in limine for an order preventing the Informal Intervenors, Cindy Meyers and Wrexie Bardaglio, from offering certain testimony and exhibits at the hearing for the above-captioned matter. Specifically, Keystone seeks to exclude testimony and other evidence on topics which the Hearing Officer has already ruled are excluded from this proceeding pursuant to the Major Oil Pipeline Sitting Act ("MOPSA"). Keystone also seeks to exclude additional irrelevant testimony offered by Wrexie Bardaglio regarding Keystone XL pipeline proceedings in South Dakota and operations in Canada.

Keystone specifically objects to and moves to exclude:

- 1. Speculative testimony by Wrexie Bardaglio regarding the appeal of the South Dakota Public Utilities Commission's order granting Keystone a permit to construct the Keystone XL pipeline in South Dakota. This testimony has been marked orange in Ms. Bardaglio's attached testimony (attached as Exhibit 1).
- 2. Testimony by Wrexie Bardaglio regarding the process by which oil is mined in Canada. Such operations are not relevant to this Commission's decision regarding the route of the Keystone XL pipeline through Nebraska. Testimony regarding oil mining operations in Canada are marked purple in Ms. Bardaglio's attached testimony.

- 3. Testimony by Wrexie Bardaglio regarding the safety of the proposed Keystone XL pipeline, including testimony regarding the risk or impacts of spills or leaks from the pipeline. This type of testimony is outside the scope of this proceeding and has been excluded by the order of the Hearing Officer pursuant to MOPSA. (See, Order on Intervention, page 1; Order Granting in Part, Denying in Part, Motions to Compel, page 4-5; and Neb. Rev. Stat. § 57-1407(4)). As with the Landowners' testimony, this testimony is marked blue in Ms. Bardagilo's attached testimony.
- 4. Testimony by Wrexie Bardaglio regarding the need and necessity of the Keystone XL pipeline, including testimony regarding the pipeline's current commercial status. This type of testimony is outside the scope of this proceeding and has been excluded by the order of the Hearing Officer pursuant to MOPSA. (*See*, Commission's Order, page 5-7, dated June 14, 2017; Neb. Rev. Stat. § 57-1403(3)). As with the Landowners' testimony, this testimony is marked green in Ms. Bardagilo's attached testimony.
- 5. The entirety of Cindy Meyers' attached testimony (attached as Exhibit 2) which is only focused on issues regarding the safety of the proposed Keystone XL pipeline, including testimony regarding the risk or impacts of spills or leaks from the pipeline. This type of testimony is outside the scope of this proceeding and has been excluded by the order of the Hearing Officer pursuant to MOPSA. (See, Order on Intervention, page 1; Order Granting in Part, Denying in Part, Motions to Compel, page 4-5; and Neb. Rev. Stat. § 57-1407(4)).
- 6. Exhibits offered by Cindy Meyers which only relate to matters regarding the safety of the Keystone XL pipeline. Like the previous discussed testimony, exhibits relating to such matters have been marked blue in Cindy Meyers' attached exhibit list (attached as Exhibit 3) and should be excluded.

CONCLUSION

Testimony and exhibits regarding the issues outlined above are not relevant to the Commission's decision under the Major Oil Pipeline Siting Act. For such reasons, Keystone respectfully requests that the Commission grant its Motion in Limine and prohibit the Informal Intervenors, Cindy Meyers and Wrexie Bardaglio, from offering the identified testimony and exhibits at the hearing.

Dated July 24, 2017.

Respectfully Submitted,

TransCanada Keystone Pipeline, LP

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CERTIFICATE OF SERVICE

I hereby certify that on July 24, 2017, that a copy of the foregoing was served by email to the individuals and entities listed below:

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BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Application)	Application No. OP-003
of TransCanada Keystone Pipeline,)	Pre-filed Testimony
L.P., Calgary, Alberta seeking)	Wrexie Lainson Bardaglio
approval for Route Approval of the)	Informal Intervenor
Keystone XL Pipeline Project)	Entered: June 5, 2017
Pursuant to the Major Oil Pipeline)	
Siting Act.)	

RIVER OF BIRDS, GRASSLAND OF SKY

Thank you for the opportunity to participate as an Informal Intervenor in the Nebraska Public Service Commission's consideration of TransCanada's request for approval of a pipeline route through Nebraska. It is my understanding that as an Informal Intervenor I am allowed to call one witness; therefore I, Wrexie Lainson Bardaglio, request to be considered as my own witness.

In the summer of 2015, I was an Individual Intervenor in the South Dakota Public

Utilities Commission's consideration of TransCanada's request for a recertification of its

permit to construct the Keystone XL Pipeline through that state. Despite the fact that
then-President Obama denied the international permit in December 2015, in January

2016 the South Dakota Public Utilities Commission approved TransCanada's request.

TransCanada at that time made it clear in numerous ways that they wished to be ready
for what they considered would be certain approval of the international permit after the

2016 US presidential election.

Following the SD PUC recertification of the permit, a number of the intervenors filed



separate appeals of that decision. On the order of Judge John L. Brown, presiding judge of the Sixth Judicial Circuit in South Dakota, the appeals by a number of us Individual Intervenors and several of the organizational and Tribal Intervenors were consolidated. The first hearing on the appeal for the certification of the South Dakota permit for the Keystone XL pipeline was held on October 14, 2016 at the Hughes County Court House in Pierre. At that time, we offered a joint motion to remand to the PUC to take testimony on the April 2016 Keystone 1 spill in Freeman, SD. In our appeal Judge Brown denied the motion to remand this matter back to the PUC to hear new this new evidence. Subsequently, the hearing on the merits of the appeal was scheduled for March 8, 2017. Despite the statement by Judge Brown that he expected to rule within 30 – 60 days, a decision has not been issued as of June 5, 2017.

Perhaps you may ask why I have outlined the situation regarding the recertification of KXL in South Dakota; that is a fair question. But as long as the ability to construct the pipeline in South Dakota is constrained by a pending decision on the appeal, the recertification remains in question. With regard to the specifics of our Individual Intervenors' case, we based our appeal largely on the following: (1) on the record before the PUC, the post-denial re-certification is not legal because of the US State

Department denial, and if the State Department were to reverse itself, TransCanada's option is a new permit; and (2) the PUC improperly excluded testimony of interested persons with information that might affect the outcome, so the PUC must do the hearing over.

And it is of particular note, quoting from a March 24, 2017 NGI's Shale Daily article,

"500 Days Later, State Department OKs Keystone XL," by Charlie Passut, that

...TransCanada still has some obstacles to overcome to get the project

completed. It must secure additional permits and negotiate with landowners and

regulators in three states—Montana, Nebraska and South Dakota—over the

pipeline's final route.

And while I am not suggesting that the status of the South Dakota permit should have any bearing on the Nebraska Public Service Commission's decision on TransCanada's application currently before the panel, I believe that it is worth noting that as of this writing this major component of TransCanada's ability to construct the pipeline is unresolved.

As an Individual Intervenor in the South Dakota proceedings, I had a professional point of view to offer in support of the South Dakota Tribes who were intervening. For ten years during my employment with the Honorable Doug Bereuter (R-Nebraska 1st Congressional District, ret.), one of my principal legislative responsibilities was Native American Affairs. In this regard, and because of the Congressman's interest and actions on numerous initiatives and issues, I came to believe that part of my job was to also serve the Tribal constituencies throughout the Federally-designated Aberdeen Service Delivery Area, not just the Federally-recognized Nebraska Tribes within the Aberdeen Area. And while I am passionately supportive of the positions in this hearing of the Ponca Tribe of Nebraska and the Yankton Sioux Tribe of South Dakota, my point of

view on this request by TransCanada, while factual and supported by the evidence I will offer here, stems from a deeply, more subjective and affective visceral place as a child of these Nebraska Great Plains, born and raised in the Platte River Valley in South Central Nebraska, in Hastings, a town where my family had and continues to have roots. There was never a question in my mind that in this particular permitting process I would request status as an Informal Intervenor; for me, this goes far beyond the legal and political and energy policy questions that will be raised and considered here. This is about who I am, how I was raised, what I was taught, what waters run through my veins as surely as blood, and who my spirit animals are, the Sandhill Cranes, animating the internal landscape of my past, and serving as touchstones today, some seventy years on. I am a bulwark against what I see as an erosion and a threat to the realities of the Nebraska plains, our agriculture, our water, our abundance, and I am a defender of our bedrock resources, our identity as a region so fertile that the warming world will increasingly depend on us for life itself. Make no mistake about that. There is too much to lose if we are careless, too much to imperil. We have no second chances.

When we were growing up, our father told us over and over and over about why

Nebraska was so green: The Ogallala Aquifer, he said, the earth's largest aquifer, was

deep and vast, and while eight states partially sat atop this ancient natural cistern,

nearly all of Nebraska floated on this body. As time went on and I moved away, there

were countless summers driving home when Indiana, Illinois, sometimes lowa were dry,

brown, suffering the periodic droughts that all farmers fear. But by the time I cleared

Lincoln, cleared Nebraska's eastern cities, Nebraska was green, fields stretching to the

horizon, testament to our father's claims that the snow runoff from the Rockies that flowed into our state was used eleven times over, cleansed in water-bearing sand and gravel on its way to the Missouri on our eastern boundary, thence to the Mississippi, and finally to the Gulf. I am sure that his statistics have changed by now, but these were the vivid and indelible pictures he painted for us. And for the most part, despite the eastward creep of desertification, Nebraska can continue to be green and bountiful—if we protect our water. Water is Life. As Lakota friends have told me many times, water is our first medicine. This is not just a Lakota construct; it is a universal truth.



(Att. 1) Ogallala Aquifer

I have been gone from Nebraska since 1970. One of the immense joys working for Doug Bereuter was that I kept and deepened my Nebraska ties. In the summers I visited small towns, farms and ranches, reservations and businesses, attended town

hall meetings and met with his constituents, listening and learning even more about what made the state tick, how she grew, who her people were, what our rich and complex history was all about. Always, learning more and more about our principal economic driver, agriculture, the message was one I already knew: we have water.

Now I live in the Finger Lakes in upstate New York. We live in the country and if I forget about the spectacular waterfalls and gorges that were carved out by the glaciers sometimes I think how similar certain landscapes here are to Nebraska. Upstate New York is graced with croplands and cattle farms, big diary enterprises, huge apple orchards, world-class wineries around the lakes, with their little microclimates so suitable for the family-owned vineyards that began springing up in the mid 1800s—I call them our upstate family farms. It is no wonder that I love it here and we call this place home.

But home is not just a singular and static place. Nebraska is also home, and it always will be. And underlying the bounty of my growing up and underlying the robust beauty of where I live now is water. Random statistics stick in my mind, clear as the waters that often bubble to the surface in the Sandhills: 30% of the nation's agriculture is irrigated by the Ogallala—in fact, according to former Nebraska State Senator Loran Schmit, quoted in a *Los Angeles Times* 1990 article on the threats to the Ogallala, without irrigation, Nebraska's gross product would drop by some 70%, a figure that continues to be relevant. And although nearly 70% of the earth is covered by water, only 2.5% of it is potable. (And of that 2.5%, the Finger Lakes region contains 7% of earth's fresh water,

according to an October 2011 study, *Accelerating Our Transformation: Finger Lakes*Regional Economic Development Council Draft Strategic Plan.) It is still, and now I know keenly that it always will be if we are to survive, all about about water, precious and in terrifyingly short supply.

Growing up in the South Central Platte River Valley, there was another narrative that shaped my childhood and carried into adulthood with a resonance that I believe I am not alone in perceiving. In fact, I would argue that there are few people who grew up in South Central Nebraska or who live there now who aren't captivated by the annual migration of the Sandhill Cranes. I daresay that there are few of these folks whose seasons aren't at least partially defined by this annual migration of the cranes. As sure as early spring comes, so do the birds. It may still be bitterly cold, but these birds know that it is time to fly, and so they do, the forward scouts appearing in winter grey skies, soon followed by hundreds of thousands of them, filling the skies, darkening the skies, their cries deafening and their gorgeous archaeopteryx silhouettes coming in wave after wave like flying Roman Legions. I loved the Sandhill Cranes. To this day, no matter where I am, the first thing in my sinews and bones when winter begins to give way is the certainty that they are coming, I feel them; they are back. They are roosting on the sandbars in the braided river and gleaning in the stubbled fields abutting it...they too are home.

From The Nature Conservancy website,

Scientists estimate that at least one-third of the entire North American population

of Sandhill Cranes breed in the boreal forest of Canada and Alaska...

Scientists estimate that approximately 80 percent of all Sandhill

Cranes in North America use a 75-mile stretch of Nebraska's Platte River during spring migration. From March to April, more than 500,000 birds spend time in the area preparing for the long journey north to their breeding grounds in Canada and Alaska. During migration, the birds may fly as much as 400 miles in one day.

Sandhill Cranes rely on open freshwater wetlands for most of their lifecycle.

Degradation of these kinds of wetland habitats is among the most pressing threats to the survival of Sandhill Cranes. (Emphasis added.)

And this brings me, in part, to my argument. As the saying goes, a picture is worth a thousand words. In this first map of the Central Flyway, prepared by Cornell University-trained cartographer Karen Edelstein, FracTracker Alliance, citation bottom right, we depict TransCanada's three potential lines through Nebraska, using the map supplied by TransCanada and posted on the Nebraska Public Service Commission website. All three north to south pipeline alternatives must of course cross the west to east Platte River. All three alternatives still traverse the ecologically distinctive and fragile Sandhills. TransCanada proposes to cut through the nation's breadbasket heartland, it proposes to slice through the Ogallala Aquifer, it proposes to cut across the Nebraska Sandhills' ranchlands and into Nebraska's farmlands, and it proposes to cross the Platte River.

But no matter how one wants to argue this, factually, water is threatened. Factually, all that depends upon water is threatened. And factually, should there be an accident,

which statics show there will be, the Sandhill Cranes, primarily the cranes, but all the other migratory birds using the Central Flyway are threatened.

According to a September 2013 study, *In Harm's Way,* by Lori Ann Burd, Noah Greenwald and Curt Bradley of the Center for Biological Diversity,

The proposed Keystone XL ("KXL") tar sands pipeline would be a disaster for the environment. The 1,700-mile pipeline would transport the world's dirtiest oil across America's heartland...

Tar sands oil for KXL would be extracted from northeastern Alberta, Canada...

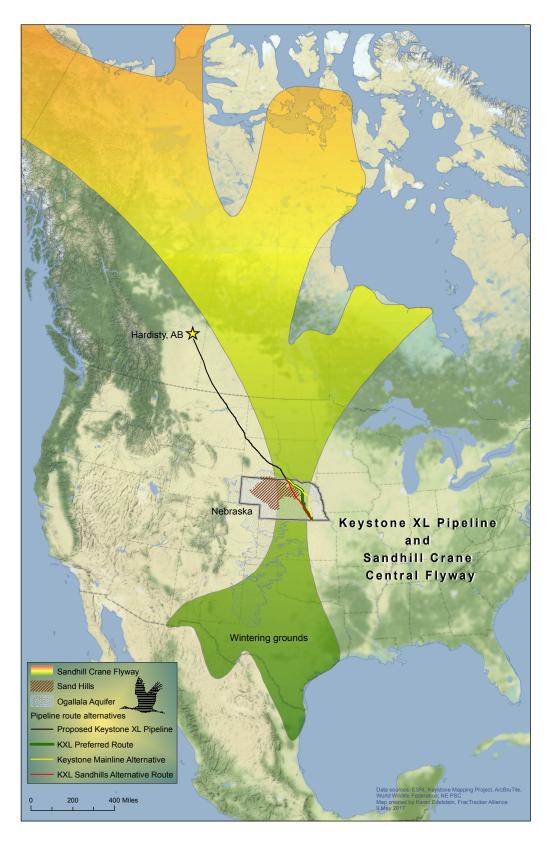
Tar sands development requires the destruction of massive areas in the ecologically significant boreal forests. Boreal forests store 22 percent of the total carbon on earth. Billions of birds, including half of America's migratory birds, nest in the boreal forest and about 300 bird species breed in or migrate through the very habitat where tar sands extraction and processing occurs...

Producing tar sands oil requires up to three barrels of water for every barrel of oil.

Compared with conventional crude oil production, it generates 70 to 110 percent more greenhouse gas emissions from well to tank. But perhaps most significantly, the tar sands represent a massive new source of fossil fuels, which leading climate scientist Dr. James Hansen has called "game over" for avoiding climate catastrophe caused by global climate change. (p.3)

The report goes on to say,

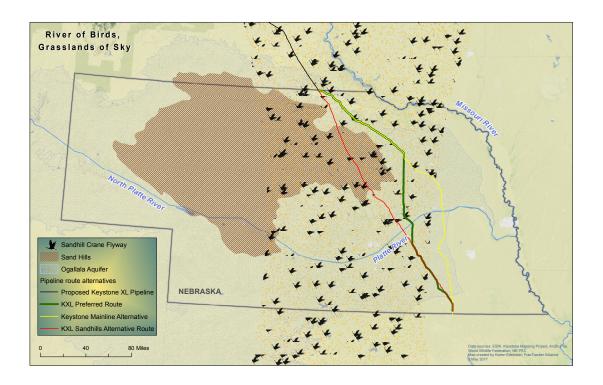
Spills of diluted bitumen have significant impacts on both terrestrial and aquatic species. The impacts of spills on wildlife can be divided into two categories: effects of toxicity and effects of lost habitat. A spill of the Keystone XL pipeline would result in toxic impacts to wildlife, including but not limited to: reproductive failure, hypothermia or drowning due to coating of wings or fur, and fatal damage to internal organs... a spill from KXL could destroy prime habitat for nearly a dozen species at risk of extinction in addition to thousands of migratory birds.



(Att. 2) The Central Flyway

But look. Just look. The map shows an ancient, near-primordial, near-mystical event. Guided by rudders and instinct we can barely comprehend, in concert with earth's intrinsic and exquisitely-designed balance, and as certain as sunrise, sunset or moon rise, these oldest of crane species find their ways through the heavens, hewing to these age-old certainties that climate change now threatens. Indeed, the greed of multinational corporations like TransCanada, who barely even pay lip service to the integrity of anything over which they can't exert dominion, eclipses everything. To say that TransCanada doesn't respect the inherent rights of species other than our own, or to biodiversities that don't include us, is an understatement, and a damning comment on their values. While 193 nations across the planet have transcended differences in an attempt to address the very survival of human and vast numbers of other species, fossil fuel industries and their best forever friend Donald Trump willfully jeopardize every living thing, and the future of every living thing. Tar sands development is immoral and unethical, and more importantly, unnecessary. Alternative technologies offer the possibility of a world in which future generations can sustain life.

My second map is as telling as my first map. Here, we see close up TransCanada's proposed routes over the Platte River crossings and the habitat.



(Att. 3) detail Nebraska, the Central Flyway, and TransCanada's Proposed Routes

In a 2011-2012 study entitled *A Comprehensive Guide to the Alberta Oil Sands:*Understanding the Environmental and Human Impacts, Export Implications, and

Political, Economic, and Industry Influences, written by Michelle Mech, Erin O'Brien,

Wetland Policy Director of the Wisconsin Wetlands Association, who observed

Enbridge's pipeline construction process in Wisconsin, details the impact of pipeline

construction on habitat:

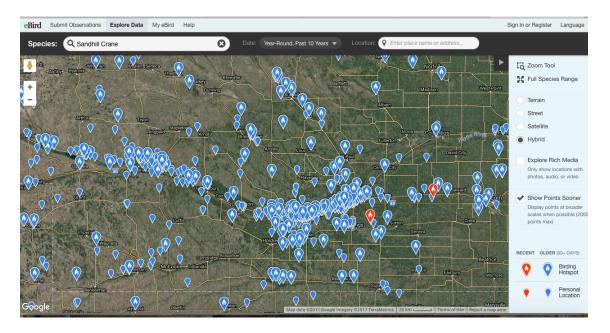
Pipeline construction and operation can cause damage to soils, surface and groundwater, air quality, vegetation, wildlife, and fish populations. Pipeline spills can lead to direct loss of various species as a result of contaminated food intake, reduced respiratory functions, or ingestion of oily water...

[Enbridge pipeline projects have] involved massive amounts of soil disturbance (trench-digging), excavation through hundreds of miles of wetlands, hundreds of stream crossings, clear-cutting of forests, and more. Trees are not allowed to regenerate above the pipes, meaning many forested areas, including wooded wetlands, are permanently stripped of forest cover and habitat...Pipeline construction is inherently messy and compliance with environmental permit conditions is often poor. (p. 49).

While of course TransCanada is not Enbridge, procedures and practices of pipeline construction will involve very similar procedures and practices, varying because of soils, topography, differences in locale and so forth. I am loath to imagine what disruption TransCanada could cause within this Central Flyway corridor. I am loath to imagine the horrible contamination of the Aquifer or the river. Even should an event transpire east of the 75-mile wide stretch of the highest concentrations of cranes during this migration, the potential for serious disruption is not acceptable. Why should we risk our treasured resources and the patterns and presence of Nebraska's iconic birds for the filthy carbon-bomb of a pipeline representing a dying industry's last gasps? I know that others during this hearing will be addressing those statistics and realities. Despite what TransCanada will try to convince you to believe, there is nothing for Nebraska or the United States in ramming a pipeline full of sludge bound for final refinement in Port Arthur, Texas before it is exported. Nothing, Nothing but peril and risk. Nothing.

The third map, below, is from Cornell University's highly respected Lab of Ornithology.

The eBird site allows one to map concentrations reported in specific areas over specific periods of time. As other sources have cited, the Sandhill Cranes' highest density is on a 75-mile stretch along the Platte—though clearly the 500,000-600,000 birds find roosting areas all across the state.



(Att. 4) Sandhill Crane Concentrations, Cornell University, Lab of Ornithology eBird

I have a final concern about what TransCanada is telling us they want to do. I will air it here, knowing that it is conjecture on my part, although I am not alone in this fear.

Let me set the stage for my concern.

It is no secret that desertification is increasing. From the US west, desertification is creeping east through Colorado and into Nebraska and Kansas. Desertification and drought are closely related, and closely studied. The southern part of the Ogallala Aquifer, in Texas, has been seriously depleted by fracking. California has recently been

affected by a 500-year drought. In Alberta, the heart of the tar sands operations, the demands on water associated with extraction of the tar sands has had a deleterious impact on the Athabasca River, the principal source of water for those operations.

According to a 2015 study entitled *Long-term reliability of the Athabasca River (Alberta, Canada) as the water source for oil sands mining,* co-authored by David J. Sauchyna,

Jeannine-Marie St-Jacquesa, and Brian H. Luckman and published by the

Prairie Adaptation Research Collaborative, University of Regina, Regina, SK, Canada and the Department of Geography, University of Western Ontario, London, ON,

Canada, and edited by Daniel L. Peters, Environment Canada, Water and Climate

Impacts Research Centre, University of Victoria, Victoria, British Columbia, Canada,

...current and projected surface water allocations from the Athabasca River,
Alberta, Canada, for the exploitation of the Alberta oil sands are based upon an
untenable assumption of the representativeness of the short instrumental gauge
record. Our trend analysis of the instrumental data shows declining regional
flows. Our tree-ring reconstruction shows periods of severe and prolonged low
flows not captured by the instrumental record.

In other words, the Athabasca River cannot sustain the demands put upon it by the tar sands industry.

The authors write that

Over the past several decades, the province of Alberta has had Canada's fastest

growing economy, driven largely by the production of fossil fuels. Climatic change, periodic drought, and expanding human activities impact the province's water resources, creating the potential for an impending water crisis. The Athabasca River is the only major river in Alberta with completely unregulated flows. It is the source of surface water for the exploitation of the Alberta oil sands, the world's third-largest proven crude oil reserve at roughly 168 billion barrels.

The oil and gas industry accounted for 74.5% of total surface water allocations in the Athabasca River Basin (ARB) in 2010. An almost doubling of ARB water allocations since 2000, or 13 times the provincial average, is attributable to expanding oil sands production, which began in 1967.

Tar sands operations cannot go forward without water. The water used for those operations is treated with a poisonous chemical cocktail that renders that water unreclaimable, to say nothing of the fact that as released into tailings ponds it is so toxic that waterfowl landing on the water die almost instantly.

From the study referenced above, A Comprehensive Guide to the Alberta Oil Sands:

Understanding the Environmental and Human Impacts, Export Implications, and

Political, Economic, and Industry Influences, comes this chilling passage:

Tailings ponds are so toxic that propane cannons are used to keep ducks from landing on them. Annual bird mortality on current Oil Sands tailings ponds could range from more than 8,000 birds to well over 100,000, depending on mortality rates during oiling events, which have been documented to be as high as 80% to

90%. (p. 23)

And for example, the same study documents numerous fatalities to wildlife such as this:

In April 2008, 1600 ducks died after landing on one of Syncrude's ponds, which

did not have noisemakers set up. In June 2010, in provincial court, Syncrude was

found guilty of "failing to prevent a hazardous substance from coming into contact

with wildlife" and of "depositing a substance harmful to migratory birds".

Syncrude was later fined \$3 million."(p. 24)

I do not know how these operators sleep at night or how TransCanada's executives and cadre of high-powered lawyers can face their children and grandchildren.

So in the paneled boardrooms and posh chambers of the captains of this vile industry, one can surmise that the looming water crisis occupies a great deal of attention in the forward planning. And why wouldn't great consideration be given to how to procure the desperately needed water? Who can swear that no one ever posited the taking of the waters of the Ogallala by reversal of one of the lines of the Keystone system? If I don't ask, and if I don't admit to this conjecture, I won't rest easy when I exit this earthly life. I don't relish being made a fool, and at the same time, I already know that there is no honor among thieves, and desperation and money are ruthless and unholy bedfellows.

And so I ask: where is the water for the tar sands operation going to come from? Not forever from the Athabasca River, that we understand. There simply isn't enough clean

water there, and the river is degraded.

River of birds, grassland of sky. I look at my maps and all my research and all my bookmarks and the studies and the official exhibits. I know what I am saying. I don't have to be a scientist. I just have to read and think and listen. I have been keeping this file for almost ten years, a file of literally hundreds of documents. And I will tell you this: I have something that TransCanada does not have, and cannot have, and will never have. They don't have what I do. I am from this place. This place is my physical being and my motivation to speak out. This visceral understanding cannot be conveyed to TransCanada. nor can TransCanada ever find it.

Time and time again I ask myself how I would feel if there should be a tar sands accident in Nebraska, like the devastating spill of tar sands into the Kalamazoo River in Michigan, like the spill in Mayflower, Arkansas—even like the spill on Keystone 1 in April 2016 in Freeman, South Dakota, detected by a landowner, not the vaunted failsafe systems TransCanada brags about. Those are lies. In Freeman, the tar sands bubbled up, put a sheen over everything, and concrete had to be poured to seal it.

What would something like that do to the Ogallala Aquifer? The entire state of Nebraska sits atop the Aquifer. And what would that do to the habitat of these magnificent birds?

Just what is the value of a state that is elemental and absolutely critical to the lives of these ancient birds, whose home is our home? In hard-core economic terms, Sandhill Cranes are a Nebraska brand as well as an economic driver: they generate upwards of

\$12M for tourism in a relatively short time frame. Nebraska without the Sandhill Cranes is like the United States without the Bald Eagle, New York City without the Big Apple.

Are the lives of these ancient, miraculously-coded birds worth the risk TransCanada poses? What is the value of our prairie, our croplands, and our water? What happens to the resource when, not if, there's a serious accident? Do they—TransCanada—want our water? Might they want our water at some point in the future? Truly, we can't put a price on creating and sustaining life. In my opinion, we must recognize that this state in so many ways embodies the heart of all there is: Nebraska is the Heartland. I believe, and hope, the Commissioners viscerally understand what I am asking, what I am saying.

The web of my own relationships and my Great Plains past are incredibly durable. I find that most Nebraskans I've encountered who have, as I have, moved away from the state, reflect such durability. We have easy, common understandings, a common language. We speak directly, or at least we like to think we do. So I want to try to be as clear and as direct as I can, like a ringing bell across the prairie: as you factor all the data and the science and the legalities, remember the bedrock of this beautiful place, however you describe it to yourselves. Consider these hard questions from your own place, your own histories here, this place you love.

My testimony and the exhibits it contains are dedicated to my dad, John Jennings
Lainson, himself a child of Nebraska's Great Plains, and my mother, Phyllis Hurley
Lainson, a gypsy soul from the Oregon coast who came to see the fields of wheat

waving in the always-blowing wind as waves upon the ocean she loved. Our parents taught us that all life is to be respected and that we should never take earth's gifts for granted. When I meet them at the portal into the great mystery, I want to tell them that I did my best.

Mni Wiconi. Water is life. We don't have the luxury of any more mistakes.

I am opposed to all three of the proposed Keystone XL Pipeline options through Nebraska, and I ask that the Commissioners deny TransCanada's request for any permit.

Respectfully submitted,

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BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Application)	Application No. OP-003
of TransCanada Keystone Pipeline,)	Pre-filed Testimony
L.P., Calgary, Alberta seeking)	Cindy Myers
route approval of the Keystone)	Informal Intervener
XL Pipeline Project pursuant to)	June 5, 2017
the Major Oil Pipeline Siting Act)	

I live in rural Holt County near the Sandhills Alternative Route. Our land and private well are two miles east of that route, downstream per flow of the Ogallala Aquifer, our drinking water source. Our water is so pristine, the town of Stuart doesn't even need to treat the public water supply. How many sources of drinking water are this pure? You must taste it to truly appreciate good water.

I listened to Dr. Jim Goeke testify to the legislative Natural Resources Committee December 1, 2010 that SW Holt County is most vulnerable to ground water contamination because of our sandy soil and high ground water level.

"Certainly here in Holt County we have got high water tables and sandy soils" (1) "We have water tables near the land surface, and southwestern Holt County has that. The pipeline could actually be set into the water table." (2)

EXHIBIT 2

From experience, I know water can be reached in many places just below the surface simply by digging a post hole. Dr. Goeke suggested an underground contamination plume could extend up to two miles, the distance our well is from the Sandhills route. (3) No amount of money or bottled water could replace our good water, the best I've tasted anywhere in the country.

My neighbor Connie and I gave Mike Flood a tour of SW Holt County in 2011, showing him a wondrous flowing well and numerous wetlands, both sourced by the Ogallala Aquifer. I explained how an oil pipeline in most of this area would be completely immersed in groundwater, submerged in Ogallala Aquifer waters, with only a half inch of poor quality steel separating the dirtiest, most toxic type of oil in the world from our pristine water, built by TransCanada, who has a history of leaks and faulty welding with their Keystone 1 pipeline.

I'm thankful Mr. Flood, speaker of our Unicameral at the time, actually drove out to Holt County and listened to us. He took our concerns back to the special legislative session in November of 2011. Mr. Flood was hailed for his bargaining skills after compromising with TransCanada, moving the route minimally to the east. TransCanada smiled because this assured them expediency of the process, but for Nebraska, it was a deceptive bargain. The reroute still crosses the heart of the Ogallala Aquifer, Nebraska's greatest natural resource. We are truly blessed with the lion's share of one of the largest underwater reservoirs in the world. *See Exhibits 1-2.

Mike Flood testified at the York hearing that pipelines are 450 times safer than rail transportation of oil. This sounds like a great sound bite for the pipeline industry, but this statistic is definitely irrelevant for Nebraska because of the Ogallala Aquifer, which extends beyond the Sandhills.

Common sense citizens in rural Nebraska know the value of this water because it is essential for living and livelihoods. The statistic Mr. Flood quoted came from an industry whitepaper. (4) The big number he threw out is an estimate by the U.S. Department of Transportation based on numbers of incidents, injuries, fatalities and fluids recovered. This is not a study which proves the safety of a tar sands pipeline either submerged in or just above the Ogallala Aquifer water. Holt County people know their groundwater, and they know without question that a dirty tar sands oil pipeline in our precious water is plum nonsense. The deeper you go with a pipe in Nebraska, the increased threat to the aquifer. Mike Flood's suggestion that a pipeline is safer than rail is strictly a moot point when considering risk to our groundwater.

Water contamination is my primary concern about a tar sands oil pipeline crossing through or just above the Ogallala Aquifer, and also crossing Nebraska's waterways and watersheds, including the Niobrara River, Elkhorn River, Platte River and the Big Blue. When considering river crossings, we must also consider all the tributaries and watersheds. *See exhibits 3-6. We must understand water will be impacted with a spill anywhere along the route because of tributaries and watersheds draining into these major waterways and also because of the interconnectedness of our ground and surface waters.

According to the FSEIS (Final Supplemental Environmental Impact Statement) for the Keystone XL Project:

"...benzene was determined to dominate toxicity associated with potential crude oil spills." (5)

The International Agency on Cancer Research (IACR) lists benzene as a group one carcinogen, meaning it has strong evidence that it causes cancer. The Dept. of Health and Human Services and EPA have also determined benzene is carcinogenic.

Exposure to benzene:

- 1. Ingestion (water and food)
- 2. Inhalation of Vapors (inhabitants in vicinity of spills, emergency workers)
- 3. Skin Contact (emergency workers, bathing and washing clothes with contaminated water)

Eye Contact (splashes). (7)

Brad Vann, EPA Environmental Scientist, informs

"You can't smell, taste or see it. It requires laboratory analysis to detect at these concentrations. Therefore, it would be possible to drink dilute benzene above the MCL unknowingly." (8)

ATSDR, Agency for Toxic Substances and Disease Registry, the highest authority in the country regarding toxins, clearly indicates that benzene is a serious health threat. Brief exposure (5-10 minutes) to very high levels of benzene vapors, can result in death. Lower levels in the air can drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion and unconsciousness.(9)

Eating foods or drinking liquids containing high levels of benzene can cause vomiting, irritation of the stomach, dizziness, sleepiness, convulsions, rapid hear rate, coma and death. Other adverse effects implicated with benzene include leukemia, anemia, lowered immunity, reproductive harm, and crossing of the placental barrier. Animal studies have shown that benzene can cause harm to a fetus, such as low birth weight, delayed bone formation and bone marrow damage. (9)

EPA has set a goal of 0 ppb (parts per billion) for benzene in drinking water and in water such as rivers and lakes because benzene can cause leukemia. The maximum contamination limit is a very extremely dilute 5ppb. (10) This means water is undrinkable if there is more than 5 parts of benzene in a billion parts of water. Putting this in perspective, imagine the town of Stuart's water tower, if filled with 50,000 gallons of water, it would only take 17 drops of benzene to make that water undrinkable. *See exhibit 7. My calculation was reviewed by Dr. Arden Davis, Ph.D., P.E., for accuracy.

An Independent study by Dr. John Stansbury, Ph.D., P.E. (11), and expert testimony given by Dr Arden Davis, Ph.D., P.E. (12), clearly point to benzene as the toxin posing the greatest risk to our waters related to oil spills. Dr. Stansbury warned about benzene and felt a human health risk assessment should have been done to estimate the increased risk of cancer.

"The primary constituent of concern for a spill into groundwater is benzene." "They simply indicate that there could be a significant, undetected release of benzene which could be consumed by human receptors and leave it at that." (13)

Dr. Stansbury was prompted to do an independent study because he believed environmental assessment for Keystone XI was woefully inadequate. He explains how benzene separates from the oil and becomes water soluble, allowing it to migrate in flowing water, perhaps hundreds of miles. (11) He describes the migration of benzene should a spill happen at the Platte River crossing:

"Contaminants from a spill at the Platte River crossing would travel downstream unabated into the Missouri River for several hundred miles and affect drinking water intakes for hundreds of thousands of people in cities like Lincoln, NE; Omaha, NE; Nebraska City, NE; St. Joseph, MO; and Kansas City, MO, as well as aquatic habitats and recreational activities." "The benzene released by the worst-case spill to groundwater in the Sandhills region of Nebraska would be sufficient to contaminate 4.9 billion gallons of water at concentrations exceeding the safe drinking water levels. This water could form a plume 40 feet thick by 500 feet wide by 15 miles long. This plume, and other contaminant plumes from the spill, would pose serious health risks to people using that groundwater for drinking water and irrigation." (11)

Dr. Arden Davis testified:

"Because of benzene's solubility and its allowable limit of only 5 parts per billion in drinking water, a pipeline leak could contaminate a large volume of surface water or ground water...". "Benzene is soluble in water and can be transported down gradient toward receptors such as public water-supply wells, private wells, and

spring or seeps. In certain cases, benzene can be transported more than 500 or 1000 feet down gradient in aquifers." (12)

According to the FSEIS:

"Most spills that enter a water body could result in exceedence of the national MCL for benzene," and "...analysis indicates the need for rapid notification of managers of municipal water intakes downstream of spill so that any potentially affected drinking water intakes could be closed to bypass river water containing crude oil."

(14) "The proposed Project route would cross several tributaries to the Missouri River with the potential to affect the Missouri River" (15)

A spill January 2015 oil pipeline rupture into the Yellowstone River allowed benzene to migrate into the water supply of Glendive, MT and benzene was found to be up to triple the MCL. (16) Current water treatment systems do not remove benzene according to an engineer with the MWRWSS (Mni Wiconi Rural Water Supply System) in SD.

Most baffling to me, most likely due to my background as a registered nurse, is that environmental impact statements required for these types of projects do not have a specific health impact assessment. Look at the table of contents of the FSEIS. Chapters devoted to plants, wildlife, soil, etc., but not one chapter devoted for assessment of impact to humans. (17)

The Kalamazoo River oil spill in July 2010 greatly affected people's health. The Michigan Dept. of Health identified 320 (58%) of 550 individuals with adverse health effects from four community surveys along the impacted waterways. (18)

TransCanada uses a pamphlet "Oil Pipeline for Emergency Responders" instructs people to monitor for benzene "if possible". (19) I'm concerned about volunteer emergency responders being uniformed about the dangers of benzene, how to monitor for benzene and how to protect themselves from the strong toxic vapors. Strong benzene fumes from a major spill could be fatal within 10-15 minutes without protection. Medical facilities must be prepared for oil spill disasters. I believe medical staff education and drills should be required since benzene poisoning is not usual for most health professionals. There is a sample MSDS (Safety Data Sheet) in the FSEIS with the notation "These MSDS do not represent the actual product that would flow through the proposed Keystone XL pipeline". (20)

After six years in operation, TransCanada's Keystone 1 had a major spill in SD in April 2016. 17,000 gallons of oil spilled underground at Galen Heckenlaibel's farm. This large leak was not detected by high-tech sensors touted by TransCanada, but discovered by a landowner. (21) It took an entire week before TransCanada could even find the location on the pipeline from which the oil spewed. Faulty welding was attributed to this disaster. (21) In a May 2017 news interview, Galen was asked if the \$12,000 dollars he was paid for his easement was worth it. Without hesitation he responded "I would not do it again". He believes TransCanada did not properly compensate him for the cleanup effort on his land. (22) *See exhibits 8-11.

It has been public knowledge that TransCanada's Keystone 1 has been very leaky from the start, including a gusher that shot about 60 feet into the air when a valve failed, "It was higher than the cottonwood trees." (23)

When it comes to cleaning up dilbit in water, there is definitely a difference compared to conventional crude oil per the FSEIS:

"A notable difference between dilbit (diluted bitumen, tar sands oil product) and other forms of crude is its capacity to precipitate out in water." "Due to the capacity for dilbit to precipitate out in water and its resistance to biodegration, in the event of a release to a water body, more difficult cleanup scenarios (dredging) may be expected..." (24)

According to the Nebraska Department of Environmental Quality Study of the KXL Reroute in 2012, there are 2,398 wells within one mile of the reroute in Nebraska. (25) A large municipal supply well or intake could potentially draw affected water to the well or intake since it would draw from a larger area of groundwater. (26)

I adamantly oppose the Sandhills route option, since this has some of the most pristine water in our state. The route option with the least impact to NE isn't mentioned in the application, This is the I-90 corridor, described in the FSEIS, which would follow the interstate for a distance in SD, and then drop down and parallel Keystone 1 the entire distance across NE. (27) *See exhibit 12.

Because of great risk to our waters, limited tax revenue due to depreciation, and negligible permanent jobs, the best option in Nebraska is no route. I am opposed to all three of the proposed Keystone XL Pipeline route options through Nebraska, particularly the Sandhills route.

I ask the Commissioners to deny TransCanada's request for any of the proposed routes.

Holt County Commissioners passed a resolution declaring no oil pipelines. This means no discussion, no debate. It means no KXL in Holt County.

Respectfully submitted,

Cindy Myers

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BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Application)	Application No. OP-003	
of TransCanada Keystone Pipeline,)	Exhibit List	
L.P., Calgary, Alberta seeking)	Cindy Myers	
route approval of the Keystone)	Informal Intervener	
XL Pipeline Project pursuant to)	June 5, 2017	
the Major Oil Pipeline Siting Act)		
1. Map of Ogallala Aquifer (High Plair	ns Aquifer) in relation to first KXL route, depicting	
saturated thickness of the aquifer.			
2. Depth to water map.			
3. Niobrara River and tributaries upstre	eam tracin	g, USGS	
4. Elkhorn River and tributaries upstrea	am tracing	r, USGS	
5. Platte River and tributaries upstream	tracing, U	JSGS	
6. Big Blue River and tributaries upstre	eam tracin	g, USGS	

EXHIBIT

contaminate 50,000 gallons of water.
8. Photo of Keystone One spill site, April 4, 2016, taken by Cindy Myers
9. Photo of Keystone One spill site, April 4, 2016, taken by Cindy Myers
(10. Photo of Keystone One spill site, April 8, 2016, taken by Cindy Myers
11. Photo of Keystone One spill site, April 8, 2016, taken by Cindy Myers
12. Map of I-90 corridor route option
13. Holt County Board of Supervisors Resolution against Oil pipelines
Respectfully Submitted,

7. Water Tower image showing 17 drops of benzene will

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