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

In order of citation within pre-filed testimony:

NGI's Shale Daily, "500 Days Later, State Department OKs Keystone XL" by

Charlie Passut, March 24, 2017

Los Angeles Times, "Pollution, Waste Imperil Cistern of Agriculture: Water: The

underground sea that supports farming in the heartland is endangered by over-

pumping and chemical encroachment," by Sid Moody, July 1, 1990

Accelerating Our Transformation: Finger Lakes Regional Economic Development Council Draft Strategic Plan

The Nature Conservancy website

In Harm's Way, by Lori Ann Burd, Noah Greenwald and Curt Bradley of the Center for Biological Diversity, 2013

A Comprehensive Guide to the Alberta Oil Sands: Understanding the Environmental and Human Impacts, Export Implications, and Political, Economic, and Industry Influences, by Michelle Mech, 2011-2012

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, 2015

Respectfully submitted,

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

I hereby certify that that a copy of the following documents were filed with the

Nebraska Public Service Commission and served on all Parties and Informal

Intervenors:

Bardaglio PSC Pre-filed testimony OP-003 PDF

Bardaglio PSC Witness Declaration OP-003 PDF

Bardaglio PSC Bibliography OP-003 PDF

Bardaglio PSC Exhibit List OP-003 PDF

Bardaglio PSC Exhibit Map Att. 1, OP-003 PDF

Bardaglio PSC Exhibit Map Att. 2, OP-003 PDF

Bardaglio PSC Exhibit Map Att. 3, OP-003 PDF

Bardaglio PSC Exhibit Map Att. 4, OP-003 PDF

Respectfully submitted,

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In the Matter of the Application of TransCanada Keystone Pipeline, L.P., Calgary, Alberta seeking approval for Route Approval of the Keystone XL Pipeline Project Pursuant to the Major Oil Pipeline Siting Act. Application No. OP-003 Exhibit Map Att. 1 Wrexie Lainson Bardaglio Informal Intervenor Entered: June 5, 2017

Exhibit Map Att. I, the Ogallala Aquifer, attached, p. 2

Respectfully submitted,



(Att. 1) Ogallala Aquifer

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In the Matter of the Application of TransCanada Keystone Pipeline, L.P., Calgary, Alberta seeking approval for Route Approval of the Keystone XL Pipeline Project Pursuant to the Major Oil Pipeline Siting Act. Application No. OP-003 Exhibit Map Att. 2 Wrexie Lainson Bardaglio Informal Intervenor Entered: June 5, 2017

Exhibit Map Att. 2, the Central Flyway, attached, p. 2

Respectfully submitted,



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In the Matter of the Application of TransCanada Keystone Pipeline, L.P., Calgary, Alberta seeking approval for Route Approval of the Keystone XL Pipeline Project Pursuant to the Major Oil Pipeline Siting Act. Application No. OP-003 Exhibit Map Att. 3 Wrexie Lainson Bardaglio Informal Intervenor Entered: June 5, 2017

Exhibit Map Att. 3, Nebraska Map, attached, p. 2

Respectfully submitted,



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

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In the Matter of the Application of TransCanada Keystone Pipeline, L.P., Calgary, Alberta seeking approval for Route Approval of the Keystone XL Pipeline Project Pursuant to the Major Oil Pipeline Siting Act. Application No. OP-003 Exhibit Map Att. 4 Wrexie Lainson Bardaglio Informal Intervenor Entered: June 5, 2017

Exhibit Map Att. 4, Sandhill Crane Concentrations, eBird, attached, p. 2

Respectfully submitted,



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

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

Att. 1: The Ogallala Aquifer

Att. 2: The Central Flyway (Sandhill Cranes and other migratory birds)

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

(including Ogallala Aquifer, Nebraska Sandhills, Platte River)

Att. 4: Nebraska, Sandhill Crane Concentrations, Cornell University, Lab of

Ornithology, eBird

Respectfully submitted,

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

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 Iowa 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. (p.6)



(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,

Wrexie Lainson Bardaglio Informal Intervenor 9748 Arden Road Trumansburg, New York 14886 607-229-8819

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

As an Informal Intervenor, I hereby declare myself as a witness.

Respectfully submitted, Wrexie Lainson Bardaglio Informal Intervenor 9748 Arden Road Trumansburg, New York 14886 wrexie.bardaglio@gmail.com 607-229-8819