

December 23, 2010

The Honorable Hillary Clinton  
Secretary of State  
United States State Department  
2201 C Street NW  
Washington, DC 20520



Dear Secretary Clinton,

The Nebraska Wildlife Federation is a state-wide organization dedicated to environmental education, fish and wildlife conservation, and common sense public policy in Nebraska. As we expressed in our comments on the Draft Environmental Impact Statement for the proposed Keystone XL pipeline, we are very concerned about the potential impact of the proposed pipeline on our environment and on Nebraska's natural resources.

We believe the Draft Environmental Impact Statement is woefully inadequate in dealing with at least two important issues. *We respectfully urge the State Department to carefully consider our comments below and those that have been offered by others, and to issue a Revised Draft Environmental Impact Statement for public review and comment before proceeding any further with the review of this project.*

Because the original Draft Environmental Impact Statement failed to adequately deal with the issues outlined below, we believe it would be premature to issue a Final Environmental Impact Statement at this point. We believe these issues warrant more careful consideration, and the opportunity for public analysis and input, to ensure that they have been treated adequately and considered carefully as part of the process required by the National Environmental Policy Act and other federal laws.

### **Alternative Routes that Would Avoid the Nebraska Sandhills and Reduce Risks to the Ogallala Aquifer**

In the Draft Environmental Impact Statement (DEIS), Table 3.3.1-2 shows over 100 miles of pipeline route in Nebraska where groundwater is less than 50 feet from surface. These are primarily in the Nebraska Sandhills, an area characterized by unique landforms and soils. The Sandhills, as the name implies, are comprised of very sandy soils, the vestiges of gravel and sand blown in over thousands of years that formed sand dunes that were later stabilized by vegetation.

The sandy soil is very permeable and, as has been indicated by researchers at the University of Nebraska Lincoln, a leak or spill of the pipeline would quickly find its way downward to the water table. What lies below the Sandhills is the High Plains Aquifer, comprised of the Ogallala Aquifer and several layers of deeper and shallower aquifers. Collectively, the layers of sand and gravel comprise one of the largest aquifer systems in the world. In some places the aquifer is over 1,000 feet deep, and in many places is at least several hundred feet of saturated thickness. The system holds an unparalleled groundwater resource with over 3.2 billion acre-feet of water, about two-thirds of which lies under Nebraska.

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In many places, the groundwater is at or very near the surface. Because of the sandy soil, high groundwater table, and the terrain, the groundwater in the region frequently discharges into streams or wetlands through seeps or springs. A large spill or undetected leak could move into the groundwater and then discharge into area streams or wetlands or wells in a relatively short timeframe.

The porous, sandy soil also makes it difficult to maintain vegetative cover in the Sandhills. Historically, the Sandhills have at times been more mobile than they are today, and it is only through careful management by ranchers and the availability of adequate rainfall that has led to the current, relatively stabilized situation with respect to vegetation. As we noted in our comments on the DEIS, the increase of several degrees average summer temperature expected by 2050 due to climate change, warmer soils in the immediate area of the buried pipeline due to the pipeline's operating temperatures, or changes in precipitation patterns from climate change could easily upset this careful balance.

Once disturbed, a mobilized sand dune presents much more risk for a buried pipeline than would a pipeline buried in the more stable clay soils that characterize much of the rest of Nebraska. Unfortunately, the extent of that risk is not considered or captured in the Department of State's DEIS, which made the overly simplistic assumption that pipeline safety was a function of the miles of pipe.

Complicating the equation is the makeup of the product to be shipped through the pipeline. While studies have been done on crude oil leaks into groundwater, the product proposed to move through the Keystone XL includes a substantial proportion of other hazardous constituents designed to allow the heavy bitumen to move under pressure through the pipeline. To our knowledge, few independent studies have been done of what happens to such a mix in a spill or slow leak scenario.

The temperature increase and loss of soil moisture could have significant impacts in the already-fragile soils of the Sandhills. The native prairie species that stabilize the Sandhills include deeply rooted prairie grasses and forbs that are adapted to the climate of the region. The "localized increase in soil temperature" and loss of soil moisture would impact the vegetation that grows right over the pipeline. That could impair the ability of the vegetation to continue to stabilize the soil that is intended to protect the pipeline from exposure.

To our knowledge no independent studies have been done that would quantify the impact that this temperature change could have on native vegetation, especially in sandy, porous soils like those of the Sandhills.

***Given the lack of scientific study of these important issues, and the risks to the land and to the critically important aquifer underneath it, we believe these issues needs much further study before conclusions of "no impact" like those drawn in the DEIS can be justified. We urge the State Department to develop and reissue a Revised Draft Environmental Impact Statement that does adequately address these issues, and release it for public comment.***

*As we read the Draft Environmental Impact Statement, to the extent the Department considered alternative routes that would avoid the Nebraska Sandhills, it abandoned those alternatives before conducting careful analysis of the possible environmental implications that could be captured in the DEIS. Instead, it made the assumption – incorrectly, as we show above – that pipeline safety is simply a function of the miles of pipeline.* Federal law is clear that the Department must consider reasonable alternatives to the project as proposed, not merely a “build” versus “no build” scenario, and in this case the Department’s failure to do so is a fatal flaw in its draft analysis.

## **Climate Change Implications**

An EIS must consider the cumulative impacts of the proposed federal agency action together with past, present and reasonably foreseeable future actions, including all federal and non-federal activities. As we noted in our comments on the DEIS concerning migratory birds, we believe the Keystone XL pipeline project cannot be considered in isolation from the tar sands oil production in Alberta that the pipeline is designed to serve. The presence of the pipeline, once constructed, will provide capacity that will enable -- and ‘sunk costs’ of investment that will actually spur -- greatly expanded development of tar sands oil production.

In their comments, groups like the National Wildlife Federation (NWF) have made important arguments about the likely impact of the project in increasing greenhouse gas emissions. We believe those arguments are sound, and believe the State Department failed to adequately assess or address these impacts. The DEIS does not adequately analyze the impacts of expanded U.S. pipeline carrying capacity and refining of heavy crude from the Canadian tar sands. The DEIS does not consider the environmental impacts of tar sands extraction or the indirect end use impacts of increased consumption of tar sands oil.

In short, as we noted in our comments on the Draft Environmental Impact Statement, the State Department’s analysis of the pipeline and reasonable alternatives does not adequately capture the potential impacts with respect to climate change and greenhouse gas emissions. ***Given the importance of this issue, we think the Department will need to issue a Revised Draft Environmental Impact Statement that does assess the greenhouse gas impact of this project and reasonable alternatives, and give the public and expert agencies and organizations the opportunity to analyze and comment on the State Department’s conclusions.***

Thank you for considering this request. I would be glad to answer questions or provide further information as you may desire.

Yours in Conservation,

Duane Hovorka, executive director