



Department of State
OES/ENV Room 2657
Washington DC 20520

Attn: Elizabeth Orlando, Keystone XL Project Manager

June 28, 2010

Delivered by Email and Registered Mail

RE: Comments from the Society for Conservation Biology (SCB) on FR Doc. 2010-9075, on the Draft Environmental Impact Statement (DEIS) for the Proposed TransCanada Keystone XL Pipeline Project

OUTLINE

Introduction

Analysis

I. Inadequate Basic Compliance with NEPA

NEPA requires an EIS to include a full and fair discussion of the significance of all direct, indirect, and cumulative effects of an action; it must also analyze connected actions.

A. “Connected Actions” Are Inadequately Addressed

The existing and foreseeable expansion of oil sands mining, among other things, should be considered a “connected action”.

B. The DEIS Does Not Adequately Examine the Alternatives to the Project

Demand and supply alternatives that better meet the energy and environmental needs of the U.S. and other affected nations should be considered as they are much more likely to be in the nation’s best interests.

C. The DEIS Inadequately Examines the “No Action” Alternative to the Project in Violation of NEPA

There is current existing pipeline capacity; to increase pipeline capacity would only encourage further mining.

D. The DEIS Inadequately Examines Adverse Effects

The State Department is required to more fully assess the impacts of the action inside and outside the US, when the action will affect natural or ecological resources of global importance.

1. **Adverse Effects on Wildlife, Ecosystems and Biodiversity**
 - a. **Degraded Water Quality and Overconsumption**
Tailing ponds kill birds, pollute groundwater, and could pollute neighboring waterways if a dike or berm were to break.
 - b. **Potential for Serious Air Quality Consequences**
Oil sands releases of benzene are currently at 100 tons per year, and could grow to 500 to 800 per year by 2015, for example.
 2. **Natural Gas Consumption and Leakage**
Extracting a single barrel of bitumen requires 250 cubic feet of natural gas for which there are better uses.
- E. Extensive Water Use and Contamination**
Extracting a single barrel of bitumen using surface mining requires two to five 159-liter barrels of fresh water.
- F. DEIS Inadequately Examines Cumulative Effects**
The reach of the pipeline's environmental affects go far beyond its physical bounds.
- G. The Scope of the DEIS Was Too Narrow to Adequately Analyze the Effects of the Project Particularly on Human Communities in the Area & Public Meetings Avoided Large Cities and Colleges**
Meetings were held in 20 communities; two communities have populations exceeding 100,000, but the average population of the other 18 communities was 7,912.
- II. The DEIS Inadequately Examines Adverse Effects on Wildlife and Endangered Species And May Reflect a Failure Prepare a Proper Biological Assessment in Violation of Section 7 of the Endangered Species Act**
Each Federal agency shall insure that any action authorized is not likely to jeopardize the existence of any endangered species.
- A. Effects on the Black-Footed Ferret Are Inadequately Examined**
Destruction of prairie dog habitat could harm the black-footed ferret.
- B. Effects on the Whooping Crane Are Underestimated – Geographic Limits Are Illegal and Data Insufficient**
The pipeline route follows the migratory route of the crane and could potentially affect designated critical habitat in Nebraska.
- III. Approval of the Project Would Be Arbitrary and Capricious Under the Administrative Procedures Act Because the Project Is Likely to Be In Violation of the Migratory Bird Treaty Act**
The MBTA's prohibition states that taking is unlawful "at any time, by any means or in any manner."
- IV. Approval of the Project Would Be Arbitrary and Capricious Under the Administrative Procedures Act Because the Project Is Likely to Be In Violation of the Fish and Wildlife Coordination Act**
If an applicable body of water is controlled or modified for any purpose whatsoever, the agency must consult with FWS, amongst others, with a view to the conservation of wildlife resources.

V. The DEIS Inadequately Addresses National and Global Climate Change Concerns

Climate change is the greatest single environmental threat of our time.

A. The DEIS Is Misleading in its Emissions Analysis – Grossly Understating Known Emissions Resulting from Such Production and Use

CEQ's draft Guidance is a partial example what reasonable analysis might include and this does not come close, rather it seriously misrepresents emissions and ignores the full cost CO2 equivalent per btu in delivered end use energy.

B. The DEIS Lack of Climate Change Considerations Is Contrary to the UN Framework Convention on Climate Change

The Parties to the UNFCCC, including the US and Canada, should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Nothing in the DEIS does this with any rigor.

C. Final International Concerns

As Canada is a party to the CBD, the Department of State should not place its imprimatur on an action that may compromise Canada's responsibilities under the CBD such as its assessment duties, its duties to control actions degrading biodiversity, and its duty not to harm other nations.

Conclusions

Appendix

INTRODUCTION

The Society for Conservation Biology¹ is taking this opportunity to submit comments in response to the Notice of Availability of the Draft EIS for the Proposed TransCanada Keystone XL Pipeline Project.

According to the DEIS, the project would consist of approximately 1,380 miles of new 36-inch-diameter pipeline in the US. The proposed pipeline would cross the international border between Saskatchewan, Canada and the United States near Morgan, Montana.² At its potential full capacity, the pipeline could ultimately transport up to 900,000 barrels per day ("bpd") of crude oil.

This pipeline and its potential capacity will enable oil corporations such as Syncrude Canada Ltd. and Suncor Energy Inc. to expand the oil sands mining and in situ oil sands development in the Athabasca, Cold Lake and Peace River areas of Alberta, Canada.³ This area

¹ The Society for Conservation Biology is an international professional organization dedicated to promoting the scientific study of the phenomena that affect the maintenance, loss, and restoration of biological diversity. The Society's membership comprises a wide range of people dedicated to the conservation, study and promotion of biological diversity: resource managers, educators, government and private conservation professionals, and students make up the more than 10,000 members worldwide.

² Executive Summary, The Draft Environmental Impact Statement for the Proposed TransCanada Keystone XL Pipeline Project at ES-2 (April 16, 2010) [hereinafter *the DEIS*].

³ Alberta Geological Survey, *Alberta Oil Sands* at 1 available at http://www.ags.gov.ab.ca/energy/oilsands/alberta_oil_sands.html, accessed May 2010.

is also known as the Canadian Boreal Forest region.⁴ Each spring more than half of America's birds migrate to the Boreal to nest.⁵ A rupture to the pipeline resulting in oil spills would be potentially devastating to countless numbers and species of birds and other wildlife using this area.

Oil sands mining creates vast wastelands of open-pit mining, toxic tailing ponds which are a threat to migrating birds; air and water pollution, and substantial destruction of wildlife habitat.⁶ The mining and drilling that will take place to feed the Keystone pipeline will eventually convert an area the size of Florida, from peat bogs or Boreal forest to grasslands or highly degraded areas.⁷

In addition to the considerable wildlife impacts noted, we have the following specific concerns that need to be addressed in the DEIS:

1. Inadequate basic compliance with National Environmental Protection Act
2. Inadequate examination of adverse effects in violation of the Endangered Species Act
3. Possible violations of the Migratory Bird Treaty Act
4. Possible violations of the Fish and Wildlife Coordination Act
5. Lack of consideration of national and global climate change concerns

ANALYSIS

I. Inadequate Basic Compliance with NEPA

NEPA was enacted to “promote efforts which will prevent or eliminate damage to the environment.”⁸ It is the “basic national charter for” environmental protection.⁹ Among the statute's goals are to “insure that environmental information is available to public officials and citizens *before decisions are made and actions are taken*”; and to “help public officials make decisions that are based on [an] understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.”¹⁰ (Emphasis added).

⁴ Jeff Wells, Susan Casey-Lefkowitz, Gabriela Chavarria, Simon Dyer. *Danger in the Nursery: Impact on Birds of Oil sands Oil Development in Canada's Boreal Forest* at iv, Natural Resources Defense Council, (2008), available at <http://www.nrdc.org/wildlife/Borealbirds.asp>.

⁵ Jeff Wells, Susan Casey-Lefkowitz, Gabriela Chavarria, Simon Dyer. *Danger in the Nursery: Impact on Birds of Oil sands Oil Development in Canada's Boreal Forest* at iv, Natural Resources Defense Council, (2008), available at <http://www.nrdc.org/wildlife/Borealbirds.asp>.

⁶ Jeff Wells, Susan Casey-Lefkowitz, Gabriela Chavarria, Simon Dyer. *Danger in the Nursery: Impact on Birds of Oil sands Oil Development in Canada's Boreal Forest* at iv, Natural Resources Defense Council, (2008), available at <http://www.nrdc.org/wildlife/Borealbirds.asp>.

⁷ Jeff Wells, Susan Casey-Lefkowitz, Gabriela Chavarria, Simon Dyer. *Danger in the Nursery: Impact on Birds of Oil sands Oil Development in Canada's Boreal Forest* at iv, Natural Resources Defense Council, (2008), available at <http://www.nrdc.org/wildlife/Borealbirds.asp>. The projected strip mining will cover 740,000 acres. The 22% restoration figure was derived from Wikipedia in late May, 2010 posting on Alberta oil sands.

⁸ 42 U.S.C. § 4321.

⁹ 40 C.F.R. § 1500.1(a).

¹⁰ 40 C.F.R. § 1500.1(b)-(c).

To achieve these objectives, NEPA requires all agencies of the federal government to prepare a “detailed statement” regarding all “major Federal actions significantly affecting the quality of the human environment.”¹¹ This statement – the EIS – must describe, among other things: (1) the environmental impact of the proposed action, and (2) any adverse environmental effects that cannot be avoided should the proposal be implemented.¹²

Under CEQ regulations, an EIS must include, among other things, the following: (1) a “full and fair discussion” of the significance of all “direct,” “indirect,” and “cumulative” effects of the action,¹³ and (2) a discussion of “means to mitigate adverse environmental impact.”¹⁴ Further, “connected actions” must be fully analyzed.¹⁵

A. “Connected Actions” Are Inadequately Addressed in the DEIS

CEQ Regulations require that connected actions must be discussed together in the same EIS.¹⁶ These actions are defined in the CEQ regulations as those that “(i) [a]utomatically trigger other actions which may require environmental impact statements”; “(ii) [c]annot or will not proceed unless other actions are taken previously or simultaneously”; and/or “(iii) [a]re interdependent parts of a larger action and depend on the larger action for their justification.”¹⁷

In addition, the courts have defined connected actions as actions that would not take place independently of one another.¹⁸ Case law makes it clear that connected actions must be addressed in the same EIS.¹⁹

The DEIS limits its consideration of connected actions to pump stations, remotely operated valves, densitometers and electrical facilities.²⁰ This is inadequate. For example, the DEIS makes no study of any additional refinery needs in the Gulf Coast that will spring from the pipeline’s output. Second, it does not address the ‘connected action’ of output from the pumping stations when output is taken. Finally, it does not examine the ‘connected action’ of the expansion of the oil sands mining facilities and operations and the adverse, cumulative effects of that expansion on the lands and waters in Canada.

¹¹ 42 U.S.C. § 4332(2)(C).

¹² 42 U.S.C. § 4332(2)(C)(i), (ii).

¹³ 40 C.F.R. §§ 1502.1, 1502.16(a)-(b), 1508.25(c).

¹⁴ 40 C.F.R. § 1502.16(h).

¹⁵ 40 C.F.R. § 1508.25(a)(1).

¹⁶ 40 C.F.R. § 1508.25(a)(1).

¹⁷ 40 C.F.R. § 1508.25(a)(1).

¹⁸ *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 894 (9th Cir. 2003).

¹⁹ *Klamath-Siskiyou Wildlands Ctr. v. B.L.M.*, 387 F.3d 989, 998-999 (9th Cir. 2004) (“[R]egulations implementing NEPA require that an agency consider ‘connected actions’ and ‘cumulative actions’ within a single EA or EIS.”)

²⁰ The DEIS, Executive Summary at ES-1.

B. The DEIS Does Not Adequately Examine the Alternatives to the Project – This Failure to Examine Alternatives Violates NEPA

CEQ NEPA regulation § 1502.14 states the following:

This section is the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environment (§1502.15) and the Environmental Consequences (§1502.16), it should present the environmental impacts of the proposal *and the alternatives* in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision-maker and the public. In this section agencies shall:

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.

(c) Include reasonable alternatives not within the jurisdiction of the lead agency.

(d) Include the alternative of no action.

(e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.

(f) Include appropriate mitigation measures not already included in the proposed action or alternatives.²¹

Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is “reasonable” rather than on *whether the proponent or applicant likes or is itself capable of carrying out a particular alternative.*²² *Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.*²³ What constitutes a reasonable range of alternatives depends on the nature of the proposal and the facts in each case.²⁴

Before reaching a no action alternative, the DEIS should assess for the Secretary of State and the nation, on whose behalf she is being asked to permit this pipeline, at least a few reasonable alternative sources of energy and energy supply and demand management for transportation and the other predominant uses of to which the oil sands products are to be put.

²¹ 40 U.S.C. § 1502.14. (Emphasis added.)

²² Forty Most Asked Questions Concerning CEQ's NEPA Regulations, Question 2a.

²³ Forty Most Asked Questions Concerning CEQ's NEPA Regulations, Question 2a.

²⁴ Forty Most Asked Questions Concerning CEQ's NEPA Regulations, Question 2a.

These should include wind, concentrated and photo-voltaic solar, in conjunction with the electric vehicles that are coming into the mass market over the same time frame as the oil sands products. This area is similar to the Dakotas, which were found to have massive wind energy potential as early as 1991 when turbines were less than half the size and efficiency they are now. The EIS could assess the extent to which such wind turbines could be arrayed and even shut off so as to have minimal impact on avian wildlife. The pipeline could be replaced by a high-voltage, direct current transmission line that would not lose appreciable power over long distances. It could be buried at key points such as German investors are building to bring large amounts of solar electric power from North Africa to Europe.

Thus the Secretary should amend this DEIS after consulting with the FERC, DOI, EPA, DOE, DOT and other agencies whose current authorities and indeed plans will reduce the need for oil sands products and increase the demand for renewables, efficiency, smart use and transmission of electricity and gas and other alternatives.

C. The DEIS Inadequately Examines the “No Action” Alternative to the Project in Violation of NEPA

CEQ NEPA regulation § 1502.14 states the following:

This section is the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environment (§1502.15) and the Environmental Consequences (§1502.16), it should present the environmental impacts of the proposal *and the alternatives* in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision-maker and the public. In this section agencies shall:

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- (d) ***Include the alternative of no action.***
- (e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.

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The existing Keystone and Alberta pipelines have a combined initial capacity of 885,000 bpd, expandable to 1,391,000 bpd²⁹ and double current export capacity to the U.S. Midwest.³⁰ Although the DEIS states that the Keystone XL is needed to address a lack of capacity, these facts suggest otherwise: that there is ample existing capacity. In fact, constructing more capacity will in all likelihood spur more mining – and hence more adverse effects, more adverse cumulative effects – in short, more needless environmental damage. In light of this – in fact, since ‘lack of capacity’ is the only reason given for needing the pipeline - **a reasonable alternative would be to not construct it.**

It makes little “common sense” to spend billions of dollars to build an unnecessary pipeline that will encourage the most environmentally devastating type of mining. Indeed, for all the reasons discussed below, it would not be in “the nation’s best interest” to approve this permit. This Administration has made greener alternative energy development a priority, and to approve this pipeline would be, in every sense, contrary to the spirit of current energy policy.

D. The DEIS Inadequately Examines Adverse Effects

Section 102(c) of NEPA does not have geographically limiting language in its requirement that agencies assess the likely environmental impact of proposed major Federal actions significantly affecting the human environment.

Although it sets out procedures for involving states and localities, NEPA also directs all agencies to “recognize the worldwide and long-range character of environmental problems ...,”³¹ and “lend appropriate support to ... programs designed to maximize international cooperation - in anticipating and preventing a decline in the quality of mankind’s world environment.”³²

²⁵ 40 U.S.C. § 1502.14. (Emphasis added.)

²⁶ Forty Most Asked Questions Concerning CEQ’s NEPA Regulations, Question 2a, emphasis added.

²⁷ Forty Most Asked Questions Concerning CEQ’s NEPA Regulations, Question 2a, emphasis added.

²⁸ Forty Most Asked Questions Concerning CEQ’s NEPA Regulations, Question 2a.

²⁹ Plains Justice Policy Brief, *The Keystone XL Pipeline: Not Needed, Too Expensive, Better Solutions* at 1, citing *Oil Sands Awash in Excess Capacity*, Globe and Mail, Apr. 27, 2010.

³⁰ Canadian Association of Petroleum Producers, *Crude Oil Forecast, Markets & Pipeline Expansions* at 19 (June 2009). CAAP estimates that in 2009 that heavy crude oil export capacity to the Midwest was 1,368,000 bpd.

³¹ 42 U.S.C. § 4332(2)(F).

³² 42 U.S.C. § 4332(2)(F).

NEPA also requires the Department of State to assess any adverse environmental effects that cannot be avoided when the pipeline is built.

Because the Department of State's proposed agency action in this case will have environmental impacts in Canada, the Department must also adhere to Executive Order 12114, *Environmental Effects Abroad of Major Federal Actions* (January 4, 1979) to the extent that it complies with NEPA.³³ The Order is designed to "provide information for use by decision makers, to heighten awareness of and interest in environmental concerns and, as appropriate, to facilitate environmental cooperation with foreign nations."³⁴ The E.O. sets forth different levels of documentation for different contexts in order to protect national security interests of the U.S. while furthering the purposes of NEPA, the Deepwater Port Act and the Marine Protection Research and Sanctuaries Act.³⁵

The E.O. even if it were the only applicable measure of the Secretary's legal duty, would require assessment of the impacts outside of the US because it requires such assessment in Section 2-3 (c):

- for Federal actions affecting the environment of a foreign nation which provide to that nation "a product or a physical project producing a principle product or effluent, which is prohibited or strictly regulated by Federal law in the United States because its toxic effects on the environment create a serious public health risk;

and (d):

- for actions which affect natural or ecological resources ... of global importance or protected by international agreement binding on the United States.³⁶

The oil sands project and process is the epitome of a project producing toxic effluent and products regulated by U.S. law. Further, the migratory birds and endangered and threatened species are protected under more than one international treaty that is binding on the U.S.,

³³ The Courts ultimately determine that compliance. In *Environmental Defense Fund v. Massey*, the United States Court of Appeals for the District of Columbia Circuit, the court wrote that the Executive Order by its own terms was solely for the purpose of establishing internal procedures for Federal agencies and that even according to the E.O. major federal actions affecting other countries may also require environmental analysis under certain circumstances. (986 F. 2d 528 (1993)). The court wrote (at 530-32) that as NEPA affects Federal agency decisions made largely in the United States the presumption against extraterritorial application of Federal laws expressed in *EEOC v. Aramco* 113 L. Ed. 2d 274 (1991) in a private employment case did not generally apply to NEPA and that the CEQ is the primary arbiter of NEPA policy, while the E.O. was based on other authorities (E.O. Section1-1 declares as much.). *EDF v. Massey* was about the incineration of waste at an NSF research station in the Antarctic but its examination of the inapplicability of an extraterritorial presumption to NEPA concerning decisions made in Washington is compelling.

³⁴ Exec. Order. No. 12,114, 43 C.F.R. §46.170 42 U.S.C. § 4321

³⁵ The E.O. did not address the duties of agencies under Section 7 of the ESA which is also without geographic limitation and at the time supported by regulations that expressly covered the full global environment. These were curtailed without statutory authority in 1986 and found to be in violation of the law by the circuit court that reached that question as discussed below.

³⁶ The E.O. refers to designation of resources by the President and the Secretary of State but conservation duties under these Conventions already cover many of the species affected.

including but not limited to the Migratory Bird Treaties with Canada and Mexico and the Convention on Nature Protection in the Western Hemisphere.

In these cases, the E.O. notes that different levels of assessment may be produced, according to the 1079 E.O., but the impacts cannot be ignored and must be the subject of reasoned analysis.

Having decided to conduct a full EIS, the Secretary should not now back out and fail to assess the impacts of her proposed actions in this case and as a cumulative total building upon her earlier permits for oil sands pipelines such as the one ready to deliver oil to Wisconsin in April of 2010. This EIS should describe the affects of such other pipelines, permitted, planned or likely to be planned in the foreseeable future.

After *EDF v. Massey* (1993) the CEQ issued a memorandum in 1997 addressing transboundary environmental effects of proposed agency actions.³⁷ The memo states, among other things, the following:

Neither NEPA nor the Council on Environmental Quality's (CEQ) regulations implementing the procedural provisions of NEPA define agencies' obligations to analyze effects of actions by administrative boundaries. Rather, the entire body of NEPA law directs federal agencies to analyze the effects of proposed actions to the extent they are reasonably foreseeable consequences of the proposed action, regardless of where those impacts might occur. Agencies must analyze indirect effects, which are caused by the action, are later in time or farther removed in distance, but are still reasonably foreseeable, including growth-inducing effects and related effects on the ecosystem,³⁸ as well as cumulative effects.³⁹ Case law interpreting NEPA has reinforced the need to analyze impacts regardless of geographic boundaries within the United States...⁴⁰

The memo further states:

Courts that have addressed impacts across the United States' borders have assumed that the same rule of law applies in a transboundary context. In *Swinomish Tribal Community v. Federal Energy Regulatory Commission*,⁴¹ Canadian intervenors were allowed to challenge the adequacy of an environmental impact statement (EIS) prepared by FERC in connection with its approval of an amendment to

³⁷ Kathleen McGinty, Chair, Council on Environmental Quality, *Memorandum to the Heads of Agencies on the Application of NEPA to Proposed Federal Agency Actions in the US with Transboundary Effects* (July, 1997).

³⁸ 40 C.F.R. 1508.8(b).

³⁹ 40 C.F.R. 1508.7.

⁴⁰ Kathleen McGinty, Chair, Council on Environmental Quality, *Memorandum to the Heads of Agencies on the Application of NEPA to Proposed Federal Agency Actions in the US with Transboundary Effects* at 3 (July, 1997). See also *Sierra Club v. U.S. Forest Service*, 46 F.3d 835 (8th Cir. 1995).

⁴¹ 627 F.2d 499 (D.C. Cir. 1980).

the City of Seattle’s license that permitted raising the height of the Ross Dam on the Skagit River in Washington State. Assuming that NEPA required consideration of Canadian impacts, the court concluded that the report had taken the requisite “hard look” at Canadian impacts. Similarly, in *Wilderness Society v. Morton*,⁴² the court granted intervenor status to Canadian environmental organizations that were challenging the adequacy of the trans-Alaska pipeline EIS. The court granted intervenor status because it found that there was a reasonable possibility that oil spill damage could significantly affect Canadian resources, and that Canadian interests were not adequately represented by other parties in the case.

....

In sum, based on legal and policy considerations, CEQ has determined that agencies must include analysis of reasonably foreseeable transboundary effects of proposed actions in their analysis of proposed actions in the United States.⁴³

This guidance has been addressed and supported in recent case law, specifically in a proposed agency action to transfer water from the Missouri River Basin to the Hudson Bay Basin in which the Bureau of Reclamation failed to take a “hard look” at the consequences of the transfer including, among other things, the consequences to Canada.⁴⁴

The final point addressed by the *Manitoba* court involved Reclamation’s argument that it had no duty to take a “hard look” at the consequences of the transfer in Canada because NEPA does “not require assessment of environmental impacts within the territory of a foreign country” and “therefore this type of evaluation is considered outside the scope of the EIS.”⁴⁵ However the court made clear that “the Council on Environmental Quality ‘has determined that agencies must include analysis of reasonably foreseeable transboundary effects of proposed actions in their analysis of proposed actions in the United States.’”⁴⁶ Although Reclamation countered that the cited guidance is not binding, the court stated, “That the guidance is not binding on agencies or entitled to substantial deference by courts does not sap it of all persuasive authority.”⁴⁷

The court concluded by stating the following: NEPA requires agencies to consider reasonably foreseeable transboundary effects resulting from a major federal action taken within the United States. Accordingly, when analyzing the consequences of biota transfer [with the water] in the Hudson Bay Basin, Reclamation must include in its analysis the impact in Canada.

⁴² 463 F.2d 1261 (D.C. Cir. 1972).

⁴³ Kathleen McGinty, Chair, Council on Environmental Quality, *Memorandum to the Heads of Agencies on the Application of NEPA to Proposed Federal Agency Actions in the US with Transboundary Effects* at 4 (July, 1997).

⁴⁴ *Government of the Province of Manitoba, et al., v. Salazar*, No. 02-2057 (D.C. Cir. March 5, 2010).

⁴⁵ *Government of the Province of Manitoba, et al., v. Salazar*, No. 02-2057, 21-22 (D.C. Cir. March 5, 2010).

⁴⁶ *Government of the Province of Manitoba, et al., v. Salazar*, No. 02-2057, 22 (D.C. Cir. March 5, 2010) *citing* Council on Environmental Quality Guidance on NEPA Analyses for Transboundary Impacts (July 1, 1997),

⁴⁷ *Government of the Province of Manitoba, et al., v. Salazar*, No. 02-2057, 21, FN 13 (D.C. Cir. March 5, 2010).

When the pipeline is built, it will carry crude oil from the oil sands fields of Alberta Canada⁴⁸ to the Gulf Coast of Texas⁴⁹ and Cushing, Oklahoma.⁵⁰ When the pipeline is built, it will enable the export of a potential capacity of 900,000 bpd of crude oil. The pipeline's capacity will in turn enable TransCanada to develop the approximately 140,000 square kilometers of Alberta's northeastern Boreal forest – roughly 21% of the province⁵¹ - where the oil sands are located.

The DEIS does not adequately address the adverse pollution effects on wildlife, ecosystems and biodiversity from this expansive level of mining and associated developments. It also does not adequately address consumption impacts of mining and upgrading the oil the pipeline will transport.

3. Adverse Effects on Wildlife, Ecosystems and Biodiversity

a. Degraded Water Quality and Overconsumption

The toxic pollution created from the oil sands mining operations has been characterized as “a slow motion oil spill...[which] may be worse than the Exxon Valdez oil spill.”⁵² Fish and game animals in the Lake Athabasca area are found covered in tumors and mutations.⁵³ One study established that arsenic levels in moose could be as much as 453 times acceptable levels.⁵⁴ As stated in *The Most Destructive Project on Earth*, “A recent report for the Health Authority of one downstream community – Fort Chipewyan – found serious flaws in the monitoring programs and went on to discover dangerous and rising levels of mercury and arsenic, and raised disturbing questions about polycyclic aromatic hydrocarbons (PAHs).”⁵⁵ PAHs are toxic to embryonic fish at concentrations as low as 1 part per billion, and the levels of PAHs in the oil sands areas have been rising, up to 1.4 in 2005.⁵⁶

In addition to PAHs, a current study by Dr. Timoney comparing toxin levels from the 1970s-1990s to present day produced the following results:

⁴⁸ The Western Canadian Sedimentary Basin (“WSBD”), Executive Summary, the DEIS at ES-3.

⁴⁹ Petroleum Administration for Defense District (“PADD”) III (Gulf Coast), Executive Summary, the DEIS at ES-3

⁵⁰ PADD II (Midwest), Executive Summary, the DEIS at ES-3.

⁵¹ Chris Severson-Baker, Marlo Reynolds, and Dan Woynilowicz. *Oil Sands Fever: The Environmental Implications of Canada's Oil Sands Rush* at 1, The Pembina Institute, Alberta, Canada (2005).

⁵² *The Most Destructive Project on Earth*, Environmental Defence at 8 (February 2008), citing Dr. Jeffrey Short, quoted in “Study Finds Carcinogens in Water Near Alberta Oil Sands Projects,” by Ian Austen, New York Times, November 9, 2007.

⁵³ *The Most Destructive Project on Earth*, Environmental Defence at 8 (February 2008).

⁵⁴ *The Most Destructive Project on Earth*, Environmental Defence at 8 (February 2008), citing Suncor, *Voyageur Project. Project Application and Environmental Impact Assessment and Environmental Setting Reports. Volume 3. Air Quality, Noise and Environmental Health* (2005).

⁵⁵ *The Most Destructive Project on Earth*, Environmental Defence at 8 (February 2008), citing Ray Ladouceur quoted in Timoney, K, 2007. A Study of Water and Sediment Quality as related to Public Health Issues Fort Chipewyan, Alberta – on behalf of the Nunee Health Board Society.

⁵⁶ *The Most Destructive Project on Earth*, Environmental Defence at 11 (February 2008).

- Mercury levels (total mercury in sediments) are as much as 98% higher in parts of the Athabasca delta over the historical medians.
- Dissolved arsenic levels have jumped as much as 466%.
- Sediment arsenic levels have increased as much as 114%.
- Alkylated PAH levels in sediments have risen as much as 72% above the historical means in some areas.⁵⁷

Second, the real and potential dangers of the tailing ponds cannot be underestimated. As explained in *The Most Destructive Project on Earth*:⁵⁸

These tailings ponds are often built on the banks of the Athabasca River and held in place only by earthen dykes. These mines and tailings ponds are being built in a Boreal forest ecosystem dominated by water. Indeed, more than 50% of the region is water in the form of lakes and creeks, marshlands and fens and of course, groundwater. The toxic chemicals from the processing of the Oil sands are released into this wetland environment. Huge pipes disgorge toxic sludge 24/7 into open air tailings ponds, which then seeps into the rivers and groundwater systems. The toxicants are so concentrated that birds can die by landing at the tailings ponds. Some companies have hired workers to rake the dead birds off the ponds; most sites use propane cannons and scarecrows intended to frighten birds away. These tailings ponds are acutely toxic. Like all tailings ponds, they leak into the river systems. Suncor admitted in 1997 that its Tar Island Pond leaks approximately 1,600 cubic meters of toxic fluid into the Athabasca River every day.⁵⁹ The tailings ponds are growing constantly and already cover more than 50 square kilometers.⁶⁰

The International Commission on Large Dams tracks major failures worldwide and finds that “Unfortunately the number of major incidents [at the oil sands tailing ponds] continues at an average of more than one a year. During the last 6 years the rate has been two per year.”⁶¹

Therefore, in addition to these tailing ponds killing birds; polluting groundwater, mutating fish and threatening complex ecosystems, a breach of only one earthen dyke could be devastating for human health, fish, wildlife, air and water quality.

The longer term damage these tailing ponds will have on Canada’s wildlife and ecosystems should be given a “hard look” before the State department commits to a project that has such potential to both waste and pollute.

⁵⁷ *The Most Destructive Project on Earth*, Environmental Defence at 12 (February 2008), citing Timoney at 67 (2007).

⁵⁸ *The Most Destructive Project on Earth*, Environmental Defence at 11 (February 2008).

⁵⁹ William Marsden. *Stupid To The Last Drop*. Alfred A. Knopf Canada. December, 2007. P. 170.

⁶⁰ *The Most Destructive Project on Earth*, Environmental Defence at 12 (February 2008), citing Timoney at 67 (2007).

⁶¹ *The Most Destructive Project on Earth*, Environmental Defence at 13 (February 2008), citing Timoney at 67 (2007), citing National Energy Board 2004. Canada’s Oil Sands: Opportunities and Challenges to 2015.

b. Potential for Serious Air Quality Consequences

Environment Canada estimates that oil sands releases of benzene are now about 100 tons per year, and could grow to 500 to 800 tons per year by 2015.⁶² Benzene is a human carcinogen that can cause cancer. As a “non-threshold”⁶³ carcinogen, meaning any human exposure is unsafe, one can only extrapolate the danger it poses to more-vulnerable wildlife that cannot escape it and must be exposed 24 hours a day seven days a week.

The combination of the above effects in the air, in the ground, and in the water could be devastating to the wildlife of the area. It is unclear why the effects to the environment of this mining project, which is the *raison d’être* for the pipeline, are not addressed in the DEIS.

4. Natural Gas Consumption and Leakage

In order to mine the oil sands, wetlands will be drained, rivers diverted and vegetation stripped from the surface.⁶⁴ Extracting a single barrel of bitumen using surface mining requires 250 cubic feet of natural gas.⁶⁵ Extraction uses heat to force the bitumen to flow which is then pumped to the surface (“in situ extraction”). This requires 1,000 cubic feet of natural gas (to create steam) to produce 1 cubic meter of bitumen.⁶⁶ After either surface mining or in situ extraction, upgrading the bitumen to crude oil requires an additional 500 cubic feet of natural gas per barrel of bitumen.⁶⁷

For perspective, 1,000 cubic feet of natural gas is enough to heat a Canadian home for 5.5 days.⁶⁸ The use of a substantial amount of a relatively clean fuel in order to produce a dirty fuel is inconsistent with sound climate change policy. To the extent that this methane leaks in the process as is often the case in gas extraction and transmission, it will be another source of a powerful greenhouse gas.

5. Extensive Water Use and Contamination

Oil sands mining operations divert and use water in many ways. Extracting a single barrel of bitumen using surface mining requires two to five 159-liter barrels of fresh water.⁶⁹

⁶² *The Most Destructive Project on Earth*, Environmental Defence at 15 (February 2008).

⁶³ Benzene is classified as “non-threshold” in both the United States and Canada.

⁶⁴ *Oil Sands Fever: The Environmental Implications of Canada's Oil Sands Rush* at 12.

⁶⁵ *Oil Sands Fever* at 12, citing Alberta Chamber of Resources, *Oil Sands Technology Roadmap – Unlocking the Potential* (2004), p. 14.

⁶⁶ *Oil Sands Fever* at 13, citing *Oil Sands Technology Roadmap – Unlocking the Potential* p. 14.

⁶⁷ *Oil Sands Fever* at 15, citing *Oil Sands Technology Roadmap – Unlocking the Potential* p. 14.

⁶⁸ *Oil Sands Fever* at 13, citing *Oil Sands Technology Roadmap – Unlocking the Potential* p. 14.

⁶⁹ *Oil Sands Fever* at 12, citing L. Flint, *Bitumen Recovery: A review of long term research and development opportunities*, p. 10, available at <http://www.ptac.org/links/dl/osdfnlreport.pdf>; and L. Sawatsky, Golder Associates, *Improved Stewardship of Water Resources that are Entrusted to Oil Sands Mine* (presentation to “Water and Land Issues for the Oil and Gas Industry” March 22, 2004).

However, only 7% of bitumen can be reached by surface mining.⁷⁰ Extracting via in situ requires 2.5 to 4 cubic meters of steam to produce 1 cubic meter of bitumen.⁷¹ Water for in situ operations is often taken from groundwater. Since more than four-fifths of the total bitumen reserves in Alberta are accessible only by in situ methods, demand for water will continue to grow.⁷²

Further, transporting and processing the mined bitumen uses large volumes of water, most of which is sent to tailings ponds to be recycled in ore processing.⁷³ Although some water is recycled in the mining operations, tailing ponds already cover an area in excess of 170 square kilometers.⁷⁴ Water is also used to upgrade the bitumen into lighter crude synthetic oil.⁷⁵

The Pembina Institute of Canada reported the following:

In 2004 Alberta produced 63 million m³ of crude bitumen and 35 million m³ of conventional oil.⁷⁶ Almost two-thirds of the bitumen production came from mining operations and the rest from in situ operations. Thus the total volume of water required for bitumen recovery is very large. For example, approved oil sands mining companies are licensed to divert 359 million m³/year from the Athabasca River. This is more than twice as much water as is used by the City of Calgary in a year.⁷⁷

⁷⁰ Mary Griffiths, Amy Taylor, Dan Woynilowicz, *Troubled Waters, Troubling Trends: Technology and Policy Options to Reduce Water Use in Oil and Oil Sands Development in Alberta* at 1, Pembina Institute (May 2006), available at http://pubs.pembina.org/reports/TroubledW_Full.pdf accessed May 2010.

⁷¹ *Oil Sands Fever* at 13, citing *Oil Sands Technology Roadmap – Unlocking the Potential*, p. 14.

⁷² *Troubled Waters, Troubling Trends* at 16, citing Alberta Energy and Utilities Board, *Alberta's Reserves 2004 and Supply/Demand Outlook/Overview*. Statistical Series (ST) 2005-98, p.2-2 and 2-3 (2005). As much as 93% of the initial volume of bitumen in place in Alberta can only be recovered using in situ recovery methods. However, the recovery rate is higher with mining than with in situ production, so it is estimated that in situ reserves are 82% of total bitumen reserves. The total remaining established reserves amount to 27,662 million m³.

⁷³ *Troubled Waters, Troubling Trends* at 2.

⁷⁴ *Troubled Waters, Troubling Trends* at 2, see also ERCB Approves Fort Hill and Syncrude Tailings Pond Plans with Conditions, Energy Resources Conservation Board (June 11, 2010), available at http://www.ercb.ca/portal/server.pt/gateway/PTARGS_6_0_308_0_0_43/http%3B/ercbContent/publishedcontent/publish/ercb_home/news/news_releases/2010/nr2010_05.aspx accessed June 2010.

⁷⁵ *Troubled Waters, Troubling Trends* at 2.

⁷⁶ *Troubled Waters, Troubling Trends* at 16, citing Alberta Energy and Utilities Board. 2005. *Alberta's Reserves 2004 and Supply/Demand Outlook/Overview*. Statistical Series (ST) 2005-98, p. 2 - 3, available at <http://www.eub.gov.ab.ca/bbs/default.htm> The EUB normally reports oil volumes in cubic meters. In this report [Pembina] follows the EUB practice of using metric measures. One cubic meter of oil is equivalent to 6.2929 barrels of oil. Thus in 2004 Alberta produced 35 million m³ of conventional oil (220 million barrels) and 63 million m³ of crude bitumen (399 million barrels) [40.9 million m³ (257 million barrels) of crude bitumen from the mineable area and 22.5 million m³ (141 million barrels) from the in situ area].

⁷⁷ *Troubled Waters, Troubling Trends* at 16, citing Sustainable Calgary (water use data), 2005. *2004 State of Our City Report*, p.48, available at <http://www.sustainablecalgary.ca/documents/SOOC2004.pdf> (water use data) and <http://content.calgary.ca/CCA/City+Hall/Business+Units/Community+Strategies/Social+Data/Research+Services/Population+Size.htm> (population data).

The Pembina Institute further states, “There are concerns about a number of potential and realized environmental impacts associated with the use of water for in situ bitumen recovery operations, including

- the removal of fresh water from the watershed;
- the drawdown of fresh aquifers and changes in groundwater levels;
- depressurization of geological formations by the removal of water, resulting in decreased aquifer pressure and increased rates of recharge;
- the removal (“voidage”) of bitumen from production zones, which can result in significant changes in the storage and flow of water in and through these zones when the depleted bitumen reservoirs become groundwater aquifers;
- the availability of saline water;
- waste disposal in deep saline aquifers; and
- landfilling [sic] of waste from water treatment processes.”⁷⁸

The amount of water used, polluted and wasted in order to extract the oil is high. The health of the region’s people, wildlife and ecosystems depend on the availability of fresh water. To use twice as much water as Calgary uses in a year would seem to warrant considerable analysis and a determination of how such losses of fresh, potable water could be, at the very least, mitigated and monitored.

E. The DEIS Inadequately Examines Cumulative Effects

An EIS must address cumulative impacts, defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency . . . or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”⁷⁹

The DEIS does little in addressing the true cumulative impacts of the proposed pipeline. The only “past, present, and reasonably foreseeable future actions” examined are short-sighted at best. The few actions included were, among others: oil and natural gas wells; a water delivery project and energy development projects.⁸⁰

However, this view is far too narrow in scope. As outlined above, the reach of this pipeline’s affects go far beyond its physical bounds. For example, although the Boreal forest system is resilient to *natural* disturbances, disturbances from the pipeline and associated developments are likely to exceed the capacity of the system to recover.⁸¹

⁷⁸ *Troubled Waters, Troubling Trends* at 3-4.

⁷⁹ 40 C.F.R. § 1508.7.

⁸⁰ The DEIS, Executive Summary at ES-20.

⁸¹ *Oil Sands Fever* at 27.

The oils sands development will likely be expanded if this large pipeline is built for several reasons and it is only the rate of that expansion that is in question. The extra pipeline capacity will likely lower the charges per unit transmitted and expand the footprint of the stripping away of vegetation. We see now direct removal in some places of standing forests and reclamation of less than 25% of the degraded lands according to the only reports we have been able to find. This alone will cause severe problems for the healthy movement and foraging of wildlife of all kinds in these areas, and the death of near 2000 ducks in tailing ponds is stark testimony to the impact of that end of the process even without the breaking open of such impoundments. Finally these have a very large climate footprint, which is likely to be measurable in microclimatic terms and that means a lot in boreal areas and in other areas where long periods of cold are the norm.

It is imperative that the DEIS address questions such as:

1. What extent of change can the Boreal plains bear before the loss is irreversible;
2. How will the Boreal ecosystem react to the drastic air, water and land adverse impacts;
3. How much wildlife habitat can be destroyed before species or significant numbers or populations of declining species are lost?

A second example is the cumulative effects of the extensive tailing ponds, dikes and basins. It is imperative that the DEIS address questions such as:

1. What is the long term commitment to the maintenance of the ponds, dikes and basins;
2. What is the estimated life span of the ponds, dikes and basins, i.e., how will the inevitable deterioration of these structures be addressed;
3. What is the estimated cumulative loss of migratory birds to the ponds and basins; a calculation which must include, for example, consideration of the loss of nestlings when breeding pairs are killed.
4. What is the estimated cumulative impact of a breach of the dikes, which will, as stated above, kill birds and fish; pollute groundwater, threaten complex ecosystems, and in short be devastating for human health, fish, wildlife, and water quality.

A third example is the lack of cumulative impacts analysis at the other end of the pipeline – when the oil reaches its destination. Refineries will pollute in refining the oil; the resulting fuels will be transported over rail and road; and the fuel will combust and create even more GHG emissions. It is imperative that the DEIS address questions such as:

1. What will be the cumulative impacts of the Gulf Coast refinery upgrades necessary to refine the crude;
2. What will be the cumulative impacts of the resultant GHG emissions produced during the actual refining of the crude;
3. What will be the cumulative impacts of the resultant GHG emissions of the final refined products, namely fossil fuels?

Here again, in light of the extensive cumulative impacts this project will have on the birds, wildlife, various ecosystems and the environment, it seems disingenuous for the department of State to legitimately argue that the project is “in the nation’s best interests.”

F. The Scope of the DEIS Was Too Narrow to Adequately Analyze the Effects of the Project Particularly on Human Communities in the Area

According to the CEQ NEPA handbook on collaboration, “One of the primary goals of NEPA is to encourage meaningful public input and involvement in the process of evaluating the environmental impacts of proposed federal actions.”⁸² To further this, CEQ regulations provide for scoping by providing, “There shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.”⁸³

According to the Scoping Summary,⁸⁴ 20 meetings were held “in the vicinity of the proposed route.”⁸⁵ Although the Scoping Summary states that the Department “received 1,350 individual comments from the public, agencies and other interested groups and stakeholders,”⁸⁶ this is inadequate when examined for geographic lapses.

First, short of two communities that have populations exceeding 100,000, the average population of the other 18 communities was 7,912.⁸⁷ The 18 community populations ranged from 320 to 46,110. Twelve of the 20 communities have populations under 5,000.⁸⁸

Second, key communities affected by the pipeline were not included in the scoping process. The Gulf Coast Segment runs from Cushing OK to Nederland TX.⁸⁹ The population of Cushing is 8,767, and Nederland is 16,096. Neither community was included in the scoping process.⁹⁰ The Houston Lateral Segment terminates in Moore Junction TX.⁹¹ Moore Junction was not included in the scoping process.⁹² In fact, Moore Junction TX only appears to exist in

⁸² Council on Environmental Quality, *Collaboration in NEPA: A Handbook for NEPA Practitioners* at Sec 1.1 (October 2007).

⁸³ 40 C.F.R. § 1501.7.

⁸⁴ United States Department of State, *Scoping Summary for the Keystone XL Project Environmental Impact Statement* (May 2009) [hereinafter *the Scoping Summary*].

⁸⁵ The Scoping Summary at 1.

⁸⁶ The Scoping Summary at 2.

⁸⁷ U.S. Census Bureau, *Annual Estimates of the Resident population of Incorporated Places, by State, Alphabetically*, Population Division (July 2009). Specifically, the towns and their populations are as follows: Atkinson, NE: 1,095; Baker, MT: 1,634; Beaumont, TX: 110,553; Buffalo, SD: 320; Clay Center, KS: 4,442; Circle, MT: 542; Durant, OK: 40,783; El Dorado, KS: 12,591; Faith, SD: 441; Glasgow, MT: 2,921; Glendive, MT: 4,585; Liberty, TX: 8,347; Livingston, TX: 6,203; Malta, MT: 1,801; Murdo, SD: 526; Plentywood, MT: 1,658; Ponca City, OK: 46,110; Terry, MT: 544; Tyler, TX: 210,839; York, NE: 7,870.

⁸⁸ U.S. Census Bureau (July 2009).

⁸⁹ The DEIS, Executive Summary at ES-2.

⁹⁰ The Scoping Summary at 1-2.

⁹¹ The DEIS, Executive Summary at ES-2.

⁹² The Scoping Summary at 1-2.

the DEIS, as it is not listed as a city, metropolitan area, community or incorporated area in the US Census.⁹³

II. The DEIS Inadequately Examines Adverse Effects on Wildlife and Endangered Species And May Reflect a Failure Prepare a Proper Biological Assessment in Violation of Section 7 of the Endangered Species Act

The NEPA duties and the Section 7 duties of the action agencies are often considered together in a combined environmental and biological assessment. The ESA requires that action agencies consult with the wildlife agencies, in this case FWS, to determine how the action agencies can use their authorities to further the conservation of listed species (7(a)(1)) as well as to avoid jeopardizing their existence (a)(2).

Section 7(a)(2) of the ESA requires the following:

Each Federal agency *shall*, in consultation with and with the assistance of the Secretary [of the Interior], insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of *any* endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical.⁹⁴ Emphasis added.

The failure to prepare a more thorough analysis of the impact on listed species as described below in regard to just two of those affected indicates a failure to prepare a Biological Assessment worthy of the name. That is a violation of the ESA *per se* even if the USFWS has not insisted upon a better one.

A. Effects on the Black-Footed Ferret Are Inadequately Examined

The DEIS states the following:

The proposed Project would cross two counties in Montana and four counties in South Dakota with black-tail prairie dog colonies that may contain potential or remnant black-footed ferret habitat. If black-footed ferrets were present in prairie dog colonies along the Project route, direct impacts would include increased habitat loss and fragmentation from the disturbance of prairie dog colonies or complexes. Construction and operation activities from the proposed Project could cause direct mortalities resulting from collisions with construction equipment and vehicles. Other indirect impacts could include

⁹³ U.S. Census Bureau (July 2009).

⁹⁴ 16 U.S.C. § 1536(a)(2).

increased habitat alteration due to fragmentation, dust deposition, and spread of noxious and invasive plants; and increased disturbance due to noise and human presence. Indirect effects could also include a reduction of prairie dog colonies due to the spread of infectious diseases such as distemper and plague.⁹⁵

First, it is unclear how the DEIS drafters arrived at the conclusion that increase habitat loss and fragmentation from the prairie dog colonies – the ferrets main source of food and burrows – is not a concern. If this is the conclusion that was presented to FWS during State’s mandatory consultation process and FWS did not see fit to discuss incidental take permits, then either State or FWS have fallen short of its duty to protect this endangered species.

Second, although the maps supplied in the DEIS are somewhat misleading, it can be shown that the pipeline route will be uncomfortably close to a ferret reintroduction area in South Dakota.⁹⁶ There is little to no discussion about this important geographic area.

B. Effects on the Whooping Crane Are Underestimated – Geographic Limits Are Illegal and Data Insufficient

The Whooping Crane is in danger of extinction throughout all or a significant portion of its range. The ESA statutory language requires that the action agency must consult with and comply with the Opinion of the Secretary of the Interior on fulfilling its (7)(a)(1) and(2) duties. Thus the environmental and biological assessments should include information on the impact on the Canadian and US habitats of the crane not only to fulfill the statutory scope of NEPA but of the ESA as well. Neither statute is limited in this instance, regulations or guidance to the contrary notwithstanding.⁹⁷ The Society in 2008 urged the Obama transition team for the Interior Department to restore the full geographic scope of the Section 7 regulations.⁹⁸

First, the DEIS neglects to address the fact that the complete expanse of the action is within the Whooping Crane’s migration route, Maps 1-2, Appendix I, pp 29-30. The Aransas Wildlife Bird Preserve population of Whooping Cranes migrates to Alberta in a northwesterly direction. According to a recent survey, there are only 263 cranes in this flock.⁹⁹ They migrate through Texas, Oklahoma, Kansas, Nebraska, South Dakota, North Dakota, eastern Montana, and eastern Manitoba before reaching Alberta.¹⁰⁰ The pipeline route follows this same path, and skirts designated critical habitat in Nebraska along the Platte River. However, the DEIS gives scant attention to this highly endangered crane. In fact, the DEIS states, “The Project may affect, but is not likely to adversely affect whooping cranes. This determination is based on the rarity of

⁹⁵ The DEIS Federal Protected Mammals: Black-Footed Ferret, section 3.8.1.1 at 3.8-5.

⁹⁶ See, e. g., DEIS Fig. 202.1-2, South Dakota Route Map.

⁹⁷ For ESA, see *Lujan v. Defenders of Wildlife*, 911 F.2d 117 (8th Cir. 1990), reversed on procedural grounds only. For NEPA, see *Environmental Defense Fund v. Massey*, 986 F.2d 528 (D.C. Cir. 1993) Antarctic base impacts.

⁹⁸ See, Recommendations to the Obama Administration and Congress for Improving the Scientific Basis for Conserving Biological Diversity (2008) available at www.conbio.org/resources/policy.

⁹⁹ Officials Fear Another Whooping Crane Die-Off, Houston Chronicle (January 27, 2010) available at <http://www.chron.com/disp/story.mpl/metropolitan/6837339.html>, accessed June 2010.

¹⁰⁰ Fish and Wildlife Service, *Whooping Crane Recovery Plan* at 13 (2006).

the species, its status as a migrant through the Project area, and Keystone’s commitment to follow recommended USFWS conservation measures.” To cite the “rarity of a species” as a reason that the Project will not affect the cranes is dubious and illogical thinking.

Second, the draft Biological Assessment notes that specific location information included in the field survey reports, are not available because “specific location information is confidential.”¹⁰¹ This is unacceptable and insufficient when it comes to analyses of threatened and endangered species and the effects the proposed action might have on habitat. There are ways to protect such species and demonstrate that thorough assessments and evaluations have been done.

Finally, limiting the analysis of affects on the Whooping Crane to the United States is inadequate as discussed above. The extent of the oil sands mining – its destruction of wetlands, the length of time of mining; and the poisonous tailing ponds, are but a few of issues that will greatly adversely affect the Whooping Crane in its northern Canadian habitat. Without such analysis the Department cannot have a true and complete picture of the threats to the Whooping Crane.

III. Approval of the Project Would Be Arbitrary and Capricious Under the Administrative Procedures Act Because the Project Is Likely to Be In Violation of the Migratory Bird Treaty Act

The APA governs judicial review of agency action. A court shall “hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.”¹⁰² Said another way, an agency action will be set aside if it breaks the law. An agency action that breaks the law, such as the Migratory Bird Treaty Act (“MBTA”), is vulnerable to citizen suit seeking to enforce the no-take requirement of the MBTA using the citizen suit provisions of the APA.¹⁰³

As stated in *Fund for Animals v. Norton*:

Although “the MBTA provides no private cause of action against the United States government to enforce its provisions, ... the law of this Circuit is clear: a plaintiff may sue a federal agency under the APA for violations of the MBTA.” *Center for Biological Diversity v. Pirie*, 191 F.Supp.2d at 175; see also *Hill v. Norton*, 275 F.3d at 103;¹⁰⁴ *Humane Society of the United States v. Glickman*, 217 F.3d 882 (D.C.Cir.2000) (holding that federal agency action in violation of MBTA violates the “otherwise not in accordance with law”

¹⁰¹ The DEIS, Appendices, “Note: Appendices for the Biological Assessment are not included as the field survey reports contain specific location information that is confidential.”

¹⁰² 5 U.S.C. § 706(2)(A).

¹⁰³ 5 U.S.C. §§ 702-706.

¹⁰⁴ The opinion states, “Because the MBTA does not create a private right of action or otherwise provide a process for judicial review, the Secretary's disputed failure to include the mute swan on the *List of Migratory Birds* can only be challenged by *Hill* under the APA.”

provision of the APA). The APA requires courts to set aside agency action that is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law.” 5 U.S.C. § 706 (2003).¹⁰⁵

The MBTA prohibits the “take” of migratory birds, their nests or eggs, except as permitted by regulation.¹⁰⁶ The statute’s prohibition states that taking is unlawful “at any time, by any means or in any manner.”¹⁰⁷ As the DEIS itself states, “Destruction or disturbance of a migratory bird nest that results in the loss of eggs or young is a violation of the MBTA.”¹⁰⁸

Oil sands production is likely to cause the loss of millions of migratory birds that nest in the forests and wetlands of the region.¹⁰⁹ The oil sands deposits lie in the Boreal plains ecozone.¹¹⁰ This region is an important breeding habitat for 22 to 170 million resident birds and an important flyway for wetland-dependent birds.¹¹¹ It is also one of the world’s most important breeding areas for migratory birds, with 1 to 3 billion individual birds from at least 300 species known to regularly breed there.¹¹² Approximately 30 percent of all shorebirds (7 million) and 30 percent of all land birds (1 to 3 billion) that breed in the United States and Canada do so within the Boreal.¹¹³ Approximately 94 percent of individual birds migrate out of the Boreal after breeding.¹¹⁴

It is not conceivable, considering the extent of the oil sands development and its negative environmental impacts, that migratory birds and those specifically protected by the Treaties and the Treaty Act will *not* be harmed. The Boreal is the nursery for billions of the hemisphere’s birds. To ignore these facts in the DEIS is unconscionable and also a violation of the law.

¹⁰⁵ *Fund for Animals v. Norton*, 281 F. Supp. 2d 209 (D.C. Cir. 2003).

¹⁰⁶ 16 U.S.C. § 703. “Take” is defined by the MBTA as: “pursue, hunt, shoot, capture, collect, kill, or attempt to pursue, hunt, shoot, capture or kill.” 16 U.S.C. § 715(n).

¹⁰⁷ 16 U.S.C. § 703(a).

¹⁰⁸ The DEIS, Non-Game Animals, section 3.6.1.4 at 3.6-13.

¹⁰⁹ Kenny Bruno, Corporate Ethics International; Bruce Baizel, EARTHWORKS; Susan Casey-Lefkowitz, Natural Resources Defense Council; Kate Colarulli, Sierra Club, *Oil sands Invasion: How Dirty and Expensive Oil from Canada Threatens America’s New Energy Economy* at 7 (May 2010), citing Jeff Wells, Susan Casey-Lefkowitz, Gabriela Chavarria, Simon Dyer, *Danger in the Nursery: Impact on Birds of Oil sands Oil Development in Canada’s Boreal Forest*, Natural Resources Defense Council (2008), available at <http://www.nrdc.org/wildlife/Borealbirds.asp>.

¹¹⁰ Jeff Wells, Susan Casey-Lefkowitz, Gabriela Chavarria, Simon Dyer. *Danger in the Nursery: Impact on Birds of Oil sands Oil Development in Canada’s Boreal Forest* at 1 Natural Resources Defense Council, (2008), available at <http://www.nrdc.org/wildlife/Borealbirds.asp>.

¹¹¹ *Danger in the Nursery* at 1, see also Synchrude Canada, *Migratory Waterfowl and the Syncrude Oil sands Lease: A Report*, Environmental Research Monograph (1973).

¹¹² See, e.g., P. Blancher, and J.V. Wells, *The Boreal Forest Region: North America’s Bird Nursery*. Boreal Songbird Initiative, Canadian Boreal Initiative, and Bird Studies Canada (2005).

¹¹³ *Danger in the Nursery* at 1, citing P. Blancher, and J.V. Wells, *The Boreal Forest Region: North America’s Bird Nursery*. Boreal Songbird Initiative, Canadian Boreal Initiative, and Bird Studies Canada (2005).

¹¹⁴ *Danger in the Nursery* at 3, citing E. Butterworth, A. Leach, M. Gendron, and G.R. Stewart, *Peace-Athabasca Delta Waterbird Inventory Program: 1998-2001, Final Report*, Ducks Unlimited Canada, Edmonton, Alberta (2002).

IV. Approval of the Project Would Be Arbitrary and Capricious Under the Administrative Procedures Act Because the Project Is Likely to Be In Violation of the Fish and Wildlife Coordination Act

As outlined above, it is a violation of the APA for an agency action to not be in accordance with the law. The Fish and Wildlife Coordination Act provides the following:

[W]henever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water otherwise controlled or modified for any purpose whatever, including navigation and drainage, by any department or agency of the United States, or by any public or private agency under Federal permit or license, such department or agency first shall consult with the United States Fish and Wildlife Service, Department of the Interior, and with the head of the agency exercising administration over the wildlife resources of the particular State wherein the impoundment, diversion, or other control facility is to be constructed, with a view to the conservation of wildlife resources by preventing loss of and damage to such resources as well as providing for the development **and improvement thereof** in connection with such water-resource development. 16 U.S.C. § 662(a).

The specific reports and recommendations of the Secretary and the state agency on the wildlife aspects of such projects *must* be made part of the responsible federal agency's report.¹¹⁵ It is intended that the reports and recommendations be based on surveys and investigations to determine possible damage to wildlife resources and measures that should be adopted to prevent that loss or damage.¹¹⁶ Federal agencies *must* give full consideration to the reports.¹¹⁷

This pipeline proposes to cross a total of 341 perennial waterbodies¹¹⁸ and 621 intermittent waterbodies.¹¹⁹ Although there is a section of the DEIS which admits that wetlands will be crossed, it does not specify exact quantity, locations, or the length of pipeline which will invade the wetland area.¹²⁰ This is inadequate and therefore, illegal.

Filing False or Misleading Information in a Federal Procedure

In this instance and in regard to several elements of this DEIS, material information concerning the type and extent of the harmful effects upon protected resources appears to have

¹¹⁵ 16 U.S.C. § 662(b).

¹¹⁶ 16 U.S.C. § 662(b), "The reporting officers in project reports of the Federal agencies *shall* give full consideration to the report and recommendations of the Secretary of the Interior and to any report of the State agency on the wildlife aspects of such projects, and the project plan *shall* include such justifiable means and measures for wildlife purposes as the reporting agency finds should be adopted to obtain maximum overall project benefits." Emphasis added.

¹¹⁷ *Id.*

¹¹⁸ The DEIS at 2-27, Perennial Waterbody Crossings, section 2.3.3.5.

¹¹⁹ The DEIS at 2-30, Intermittent Waterbody Crossings, section 2.3.3.6.

¹²⁰ The DEIS at 2-31-2, Wetland Crossings, section 2.3.3.7.

been either withheld or so seriously downplayed or underreported or under-investigated as to paint a picture of a very light footprint where the opposite is true. One must assume that the intent is to avoid greater scrutiny and greater initial costs or delays in approving the permit and the construction. Depending on the level of *scienter* or criminal intent, such withholding or misdirecting in a federal filing can be a felony under 18 U.S.C. Section 1001 and other provisions.

V. The DEIS Inadequately Addresses National and Global Climate Change Concerns

A. The DEIS Does Not Consider the CEQ Draft Guidance on Climate Change, or its elements, as fundamental, independent of their draft status.

CEQ's new Guidance is being created specifically for projects such as Keystone XL because of the large-scale climate change impacts such projects have. Although the proposed guidance is not yet final, the Department of State would do a disservice and act contrary to the spirit of the Guidance if it does not address the issues outlined in the Guidance. As the Guidance states, "By statutes, Executive Orders, and agency policies, the Federal government is committed to the goals of energy conservation, reducing energy use, eliminating or reducing GHG emissions, and promoting the deployment of renewable energy technologies that are cleaner and more efficient."¹²¹

The atmospheric concentration of CO₂, the leading driver of GHG, is now 392 parts per million (ppm),¹²² higher than any time in the last 650,000 years.¹²³ The Carbon Dioxide Information Analysis Center lists 207 nations by order of carbon emissions. The oil sands alone in their oil development have higher emissions than 145 of them.¹²⁴ The oil sands are the single largest contributor to GHG emissions growth in Canada.¹²⁵ Further note that the above figure is simply the result via *development* of the oil sands. It does not include moving the oil through the continental US (using electricity and trucks), energy that will go into final refining in Texas and elsewhere, burning of that oil (as fuel), and release of those emissions. All of this should have been assessed in the cumulative effects section but was not.

Indeed, the DEIS offers little, if any, true analysis of the subject. The Executive Summary utilizes two paragraphs to make three points regarding climate change issues.

¹²¹ The draft Guidance at 2.

¹²² As measured by NOAA at the Mauna Loa Observatory, *accessed* May 2010 *available at* ftp://ftp.cmdl.noaa.gov/ccg/co2/trends/co2_mm_mlo.txt

¹²³ Intergovernmental Panel on Climate Change, the Fourth Assessment Report, Working Group 1, Frequently Asked Question 7.1, *Are Increases in Atmospheric Carbon Dioxide and Other Greenhouse Gases During the Industrial Era Caused by Human Activities?*, *available at* <http://www.ipcc-wg1.unibe.ch/publications/wg1-ar4/ar4-wg1-faqs.pdf>

¹²⁴ Environmental Defence, *Canada's Toxic Oil sands* at 16 (February 2008), *citing* United Nations Convention on Climate Change, World Resources Institute, U.S. Department of Energy's Carbon Dioxide Information Analysis Center ("CDIAC"). CDIAC reports *available at* http://cdiac.ornl.gov/trends/emis/meth_reg.html, *accessed* May 2010.

¹²⁵ *Oil Sands Fever* at 19.

First, in discussing incremental climate change impacts, the Executive Summary asserts that, “Assuming constant demand for refined oil products, the incremental impact of the Project on GHG emissions would be minor.”¹²⁶ It goes on to state that although refining the crude to fuel will produce an estimated 1.3 to 1.7 million tons of CO₂ per year,¹²⁷ this is of little consequence because, “since the crude oil delivered by the Project would be replacing similar crude oils from other sources, the incremental impact of these emissions would be minor.”¹²⁸ Said another way, the approximately 1.5 million tons of CO₂ per year will occur whether the pipeline is build or not; therefore, the pipeline should be built.

SCB is greatly concerned by this arguably misleading picture of the pipeline’s incremental climate change impacts. As discussed extensively in this Comment, oil sands mining is environmentally devastating; directly or indirectly degrades or destroys carbon-sequestering forests; and uses other energy sources (e. g., natural gas) in large amounts in its production. Yet none of these factors are included in the above calculation. If indeed the above calculation is, as it asserts, a simple equation which suggests oil is oil and the US is going to import regardless, the fact that the true incremental impacts are not incorporated and that alternatives are not discussed could leave the DEIS authors and those negligently approving it vulnerable to running afoul of 18 U.S.C. § 1001 and related criminal code provisions designed to protect the integrity of the scientific and other facts upon which Federal permits and other actions are based.¹²⁹

Second, in discussing cumulative climate change impacts, the Executive Summary appears to abdicate any responsibility towards cumulative impacts by stating, “The cumulative impact of increased GHG emissions in this area [PADDs II and III] would depend upon the potential for reductions in GHG emissions elsewhere, consistent with developing regulatory frameworks in the U.S., Canada and worldwide.”¹³⁰ Put differently, State is suggesting that cumulative impacts depend on what happens elsewhere, and offers nothing further. This is a completely unacceptable approach to assessing cumulative climate change impacts. As laid out in the draft Guidance:

Where an agency concludes that a discussion of cumulative effects of GHG emissions related to a proposed action is warranted to inform decision-making, CEQ recommends that the agency do so in a manner that

¹²⁶ DEIS Executive Summary at ES-21.

¹²⁷ DEIS Executive Summary at ES-21.

¹²⁸ DEIS Executive Summary at ES-21.

¹²⁹ 18 U.S.C. § 1001 provides the following: Statements or entries generally

(a) Except as otherwise provided in this section, whoever, in any matter within the jurisdiction of the executive, legislative, or judicial branch of the Government of the United States, knowingly and willfully--

(1) falsifies, conceals, or covers up by any trick, scheme, or device a material fact;

(2) makes any materially false, fictitious, or fraudulent statement or representation; or

(3) makes or uses any false writing or document knowing the same to contain any materially false, fictitious, or fraudulent statement or entry;

shall be fined under this title, imprisoned not more than 5 years or, if the offense involves international or domestic terrorism (as defined in section 2331), imprisoned not more than 8 years, or both.

Related sections are 1505 and 371. These are currently being reviewed by the Justice Department in relation to the gulf oil spill.

¹³⁰ DEIS Executive Summary at ES-21.

meaningfully informs decision makers and the public regarding the potentially significant effects in the context of the proposal for agency action. This would most appropriately focus on an assessment of annual and cumulative emissions of the proposed action and the difference in emissions associated with alternative actions. Draft Guidance at 5.

In short, the Department of State must analyze the cumulative climate change effects in a meaningful way, taking into account a proper scope of those impacts. To suggest no analysis is possible because of what may or may not happen elsewhere is a complete abdication of the Secretary's responsibility under NEPA.

Finally, the Executive Summary asserts that, "The potential impacts of climate change would not be expected to affect the proposed Project."¹³¹ Although the Executive Summary does admit that increased hurricane activity in the Gulf Coast "may result in additional flooding in some areas near the Project,"¹³² this is inconsequential because "[t]he Project would be designed and constructed to be consistent with applicable federal, state, and local standards, and therefore should be resistant to forces associated with reasonably likely climate conditions during the lifetime of the pipeline system."¹³³ It is unclear how, in the face of ongoing international efforts to understand and address the global climate crisis and its effects, the Department of State can confidently assert that current applicable federal, state and local standards will be sufficient to protect a pipeline with the potential to spill 900,000 bpd of crude oil daily. For example, buckling of frequently frozen areas is a common phenomenon in the north that can affect oil-bearing pipelines.

B. The DEIS Lack of Climate Change Considerations Is Contrary to the UN Framework Convention on Climate Change

The science of climate change leaves little doubt – and is reflected in the draft Guidance – that lowering GHG emissions must take place rapidly if we are to prevent drastic worldwide impacts. For the Department of State to approve a pipeline that will increase GHG emissions in every possible way, is also in direct conflict with our duties under the UN Framework Convention on Climate Change to which we are a party. While not binding in regard to specific actions, there is hardly a better example of the use of a discretionary, not mandatory, authority to issue a permit that would violate the spirit of the Convention and its general duties to proceed in ways that reduce GHGs and increase natural sequestration. To wit:

Article 3.3:

The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, ... To

¹³¹ DEIS Executive Summary at ES-22.

¹³² DEIS Executive Summary at ES-22.

¹³³ DEIS Executive Summary at ES-22.

achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties.

...

Article 4 Commitments ...

(2) Developed Parties

(a) Each of these Parties shall adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs....

President Obama and Secretary of State Clinton already have national policies with which to address climate change, ranging from Section 115 of the Clean Air Act, which provides the Secretary with the authority to enter into pollution control agreements with other countries, to the other sections of that Act and other laws outlined in recommendations and testimony submitted by SCB. The Secretary should invest her energy and authority to fulfill that greater mission, which is more true to “the national interest,” rather than in providing inadequate public assessments of irreversible damage that would flow from a single permit she does not need to grant.

C. Final International Concerns

Finally, it would serve the Department of State well to determine whether this agency action complies with applicable Canadian law and policy. In short, will the construction of this pipeline and the resultant expansion of oil sands mining run afoul of Canadian environmental goals? As a party to the Convention of Biological Diversity, Canada is bound by its provisions, and it is a concern of the Society that this pipeline may place Canada in the untenable position of being contrary to the spirit of the CBD. Surely it would not be in our “nation’s best interest” to compromise our neighbors to the north in such a fashion. The CBD requires proper assessment of potential impacts and warning of neighboring countries (Article 14); controlling activities that degrade biodiversity (8(1)) and confirms the duty not to harm the environments of other nations.

Canada is also a party to the Kyoto Protocol, which this project may cause it to violate more than any other project. The US should explain the ramifications of this in any EIS.

CONCLUSIONS

We suggest that you reject the proposed permit and that you review and revoke one or more permits previously granted for pipelines entering Wisconsin and elsewhere in the US on the grounds that:

- 1) they will cause the Secretary and all those relying upon her permits to be operating in violation of the law and subject to remedies at law and equity;**
- 2) they delay, draw investment away from, and make more difficult the necessary shift to clean energy; and**
- 3) they will harm large numbers of migratory and nesting birds, damage swaths of wildlife habitat in the boreal forest and boreal plains, contaminate and divert clean water, and pollute the air in violation of the laws and treaties cited; and**
- 4) they will likely lead to such intense pollution and GHG emissions as to be the single largest contributor to climate change shifts that many coral reefs, ice bodies, and forests of the planet cannot survive.**

Thank you in advance for your cooperation.

Sincerely,

John M. Fitzgerald, J.D.
Policy Director

Lyn Arnold, J.D.
Policy Associate

**APPENDIX I
MAP 1**

Current Range and Migratory Corridor of the Whooping Crane



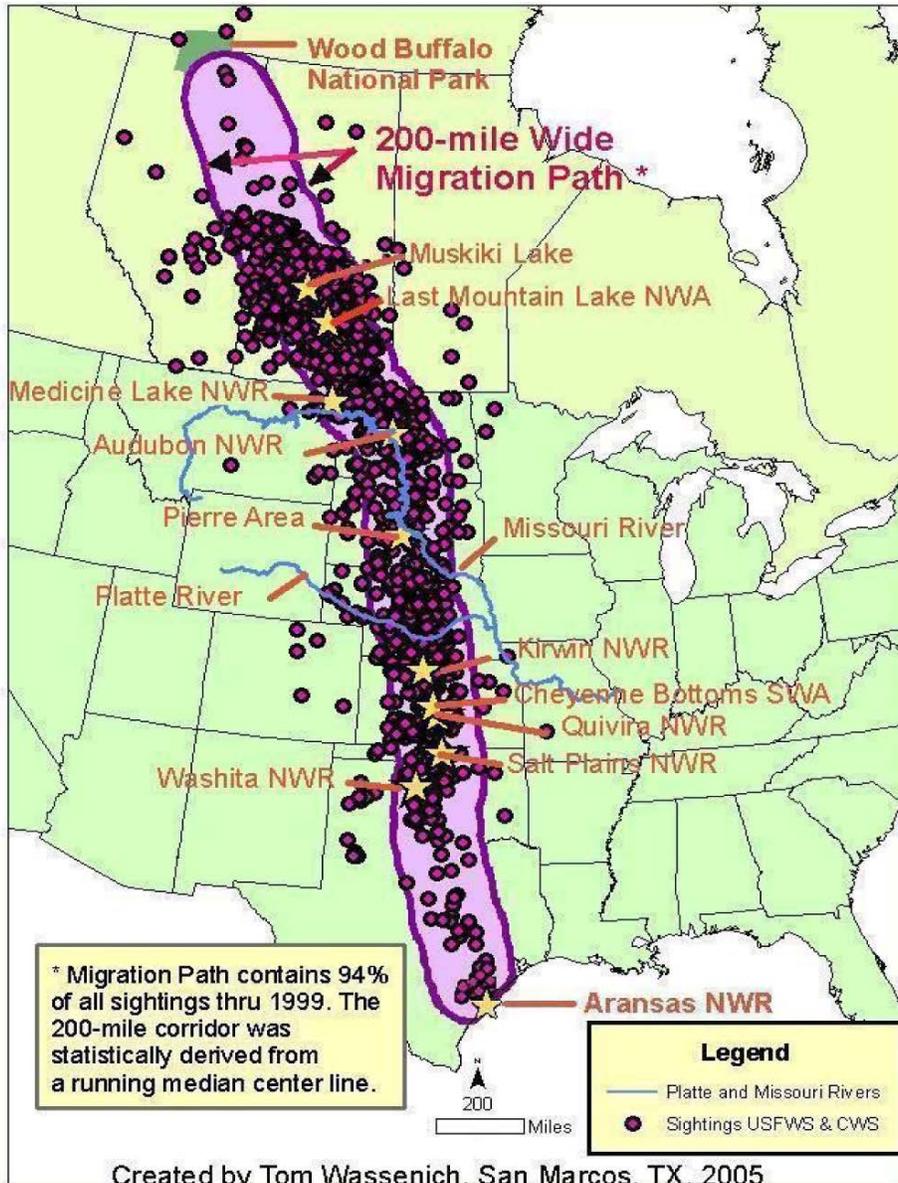
- Current range and migratory corridor
- Historical range
- Oil sands deposits

Pipeline route map courtesy of the Department of State, available at <http://keystonepipeline-xl.state.gov/clientsite/kestonexl.nsf/map.jpg?OpenFileResource> accessed June 2010.

Whooping crane information courtesy of U.S. Fish and Wildlife Service, International Whooping Crane Recovery Plan, Third Revision at 4 (March 2007), available at <http://www.fws.gov/southwest/refuges/texas/aransas/pdf/WHCR%20RP%20Final%207-21-2006.pdf>, accessed June 2010.

APPENDIX I
MAP 2

Breeding and wintering areas and primary migration pathway of the Aransas-Wood Buffalo Population of the Whooping Crane



Whooping crane information courtesy of U.S. Fish and Wildlife Service, International Whooping Crane Recovery Plan, Third Revision at 4 (March 2007), available at <http://www.fws.gov/southwest/refuges/texas/aransas/pdf/WHCR%20RP%20Final%207-21-2006.pdf>, accessed June 2010.