



December 4, 2017

**By U.S. Certified Mail, return receipt requested, and email to:**

U.S. Department of State  
The Executive Office  
Office of the Legal Advisor  
600 19th St. NW Ste 5.600  
Washington, DC 20522-1705  
[no email available]

Thomas A. Shannon, Jr.  
Under Secretary of State for Political Affairs  
U.S. Department of State  
The Executive Office  
Office of the Legal Advisor  
600 19th St. NW Ste 5.600  
Washington, DC 20522-1705  
beroey@state.gov

Ryan Zinke, Secretary of the Interior  
U.S. Department of the Interior  
1849 C Street, NW  
Washington, DC 20240-0001  
exsec@ios.doi.gov

U.S. Fish and Wildlife Service  
Mountain-Prairie Regional Office  
134 Union Boulevard  
Lakewood, Colorado 80228-1807  
mountainprairie@fws.gov

Bob Harms  
U.S. Fish and Wildlife Service  
Nebraska Field Office  
9325 South Alda Road  
Wood River, Nebraska 68883-9565  
robert\_harms@fws.gov

Jim Kurth, Acting Director  
Office of the Director  
Office of Law Enforcement  
U.S. Fish and Wildlife Service  
Main Interior  
1849 C Street, NW Room 3331  
Washington, DC 20240-0001  
jim\_kurth@fws.gov  
lawenforcement@fws.gov

CC:  
Bureau of Land Management  
1849 C Street NW, Rm. 5665  
Washington DC 20240

Jim Stobaugh  
National Project Manager (WO350)  
BLM Nevada State Office  
1340 Financial Blvd  
Reno, NV 89502  
jstobaug@blm.gov

U.S. Army Corps of Engineers  
441 G Street NW  
Washington, DC 20314-1000

Martha Chieply, Regulatory Branch Chief  
U.S. Army Corps of Engineers  
1616 Capitol Ave., Ste. 9000  
Omaha, NE 68102  
martha.s.chieply@usace.army.mil

**Re: 60-Day Notice of Intent to Sue for Failure to Reinitiate ESA Section 7 Consultation on the Mainline Route Alternative for Keystone XL**

Dear Sirs/Madams:

This letter serves as formal notice from the Center for Biological Diversity, Friends of the Earth, Natural Resources Defense Council, Bold Alliance, Sierra Club, and Northern Plains Resource Council (collectively, the “Conservation Groups”) regarding their intent to file a lawsuit against the U.S. Department of State and Under Secretary Shannon in his official capacity (collectively, the “State Department” or “Department”) and the U.S. Fish and Wildlife Service (“the Service”) for failing to reinitiate consultation and to meet your duty to insure that construction and operation of the Keystone XL Pipeline and related infrastructure (“Keystone XL” or “the Project”) is not likely to jeopardize the continued existence of threatened and endangered species, in violation of Section 7 of the Endangered Species Act (“ESA”), 16 U.S.C. § 1536.

On November 20, 2017, the State of Nebraska’s Public Service Commission rejected TransCanada’s preferred route through Nebraska and approved another route for the Keystone XL pipeline, known as the “mainline alternative” (Mainline Alternative Route). A significant portion of the state-approved route through Nebraska is therefore different from the route that the State Department and the Service evaluated during the prior section 7 consultation for the Project. The approved route would require construction and operation of the Project in areas with habitat for listed species that were not considered in the prior Biological Assessment and Biological Opinion for Keystone XL, including the pallid sturgeon, Topeka shiner, sturgeon chub, and lake sturgeon. The Mainline Alternative Route also presents new threats to species that you previously determined are “not likely to be adversely affected” by the Project, such as the whooping crane, piping plover, and the interior least tern. Thus, the Project has been “modified in a manner that causes an effect to the listed species . . . that was not considered,” and the State Department and Service must reinitiate ESA Section 7 consultation to ensure that listed species are not likely to be jeopardized by the Project.<sup>1</sup>

As demonstrated in the Conservation Groups’ prior notice regarding this Project as well as the pleadings in the consolidated challenges to Keystone XL, the Project is already likely to adversely affect listed species by causing a proliferation of new power lines that will increase collision and predation risks; by increasing the risk of oil spills; and by destroying or damaging habitat during construction and operation.<sup>2</sup> These adverse effects were not adequately analyzed by the State Department and the Service in the prior consultation, in violation of the ESA.<sup>3</sup>

---

<sup>1</sup> 50 C.F.R. § 402.16(c). In addition, the change in route in Nebraska may result in an exceedance of the take of American burying beetle authorized by FWS in the May 2013 Biological Opinion, *id.* § 402.16(a), may lead to new information about the Project’s effects to listed species that the agencies have not previously considered, *id.* § 402.16(b), and/or may implicate newly listed species or designated critical habitat that may be affected by the Project, *id.* § 402.16(d), such that reinitiation of consultation is required for these reasons as well.

<sup>2</sup> See Conservation Groups’ 60-Day Notice of Intent to Sue for Failure to Insure that Approval of Keystone XL Pipeline will not Jeopardize the Whooping Crane, Interior Least Tern, and Piping Plover, in Violation of Section 7 of the Endangered Species Act (May 24, 2017) (incorporated herein by reference and attached as Exhibit A).

<sup>3</sup> See *id.*

Consultation must now be reinitiated and completed to assess these impacts for the mainline alternative route. Given the readily apparent potential for adverse impacts (as exemplified by the most-recent spill of over 200,000 gallons of oil from the Keystone I pipeline), the parties should undertake and complete formal ESA consultation on the impacts to these species.

The State Department and the Service have sixty days to remedy the violations identified in this letter. If the Department and Service do not promptly correct these violations, we intend to file a citizen suit and to seek appropriate declaratory and injunctive relief, as well as reasonable litigation costs and attorneys' fees, for the agencies' violations of the ESA.<sup>4</sup>

### **The Duty to Reinitiate Consultations Under Section 7 of the ESA**

Congress enacted the ESA in 1973 to provide for the conservation of endangered and threatened fish, wildlife, plants and their natural habitats.<sup>5</sup> The ESA imposes substantive and procedural obligations on all federal agencies with regard to listed and proposed species and their critical habitats.<sup>6</sup>

Under Section 7 of the ESA, federal agencies must “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 ... to be critical.”<sup>7</sup>

The definition of agency “action” is broad and includes activities carried out by agencies such as “the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid,” and “actions directly or indirectly causing modifications to the land.”<sup>8</sup> It encompasses the Department’s issuance of the March 23, 2017 cross-border permit and accompanying record of decision and national interest determination for Keystone XL.<sup>9</sup>

---

<sup>4</sup> See *id.* § 1540(g).

<sup>5</sup> *Id.* §§ 1531, 1532.

<sup>6</sup> See *id.* §§ 1536(a)(1), (a)(2) and (a)(4) and § 1538(a); 50 C.F.R. § 402.

<sup>7</sup> 16 U.S.C. § 1536(a)(2). To “jeopardize” means to “engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.” 50 C.F.R. § 402.02.

<sup>8</sup> *Id.*

<sup>9</sup> See *N. Plains Res. Council v. Thomas*, CV-17-31-GF-BMM, 2017 U.S. Dist. LEXIS 193562 (Dist. MT. Nov. 22, 2017); *Indigenous Env'tl. Network v. United States Dep't of State*, CV-17-29-GF-BMM, 2017 U.S. Dist. LEXIS 193546 (Dist. MT. Nov. 22, 2017) (holding that the State Department must comply with the ESA when issuing a permit and record of decision for Keystone XL); *Indigenous Env'tl. Network v. United States Dep't of State*, CV-17-29-GF-BMM, 2017 U.S. Dist. LEXIS 193546 (Dist. MT. Nov. 22, 2017).

The duty to insure no jeopardy is one of the ESA's clearest cornerstones for the conservation of listed species. To comply with this duty, Section 7(a)(2) and its implementing regulations set forth a detailed process that must be followed before agencies take or approve actions that may affect a threatened or endangered (*i.e.*, "listed") species or its critical habitat. Fulfillment of this process is the only means by which an agency insures that its affirmative duties under Section 7(a)(2) are satisfied. In fulfilling the requirements of Section 7(a)(2) and the procedural requirements set forth in 50 C.F.R. Part 402, agencies must "use the best scientific and commercial data available."<sup>10</sup>

Pursuant to the consultation process, if the action agency concludes in a "biological assessment" that a proposed action is "not likely to adversely affect" a listed species that occurs in the action area—and the Service lawfully concurs in writing with the action agency's determination—then the process is terminated and, unless the Service's concurrence was arbitrary and capricious and/or the action agency failed to adhere to the ESA's requirements, then no formal consultation is required.<sup>11</sup> If the Service's concurrence in a "not likely to adversely affect" finding is inconsistent with the best available science or otherwise unlawful, however, any such concurrence must be set aside.<sup>12</sup>

If the action agency concludes that an action is "likely to adversely affect" listed species or critical habitat, it must enter into "formal consultation" with the Service.<sup>13</sup> The ESA's threshold for triggering the formal consultation requirement is very low.<sup>14</sup>

Formal consultation commences with the action agency's written request for consultation and concludes with issuance of a "biological opinion."<sup>15</sup> The biological opinion states the Service's opinion as to whether the effects of the action are "likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat."<sup>16</sup>

During formal consultation, the Service and the action agency must evaluate the "effects of the action," including all direct and indirect effects of the proposed action, plus the effects of actions that are interrelated or interdependent, added to all existing environmental conditions—that is, the "environmental baseline."<sup>17</sup> The environmental baseline includes the "past and

---

<sup>10</sup> 16 U.S.C. § 1536(a)(2).

<sup>11</sup> 50 C.F.R. §§ 402.12(k), 402.13(a), 402.14(b).

<sup>12</sup> *See* 5 U.S.C. § 706(2).

<sup>13</sup> 50 C.F.R. §§ 402.12(k), 402.14(a).

<sup>14</sup> *See* 51 Fed. Reg. 19,926, 19,949 (June 3, 1986).

<sup>15</sup> *See* 50 C.F.R. §§ 402.02, 402.14(c), (g).

<sup>16</sup> *Id.* § 402.14(g)(4). To "jeopardize the continued existence of" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." *Id.* § 402.02.

<sup>17</sup> 50 C.F.R. §§ 402.02, 402.14.

present impacts of all Federal, State, or private actions and other human activities in the action area . . . .”<sup>18</sup> The effects of the action must be considered together with “cumulative effects,” which are “those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation.”<sup>19</sup>

If the Service concludes that an action is not likely to jeopardize listed species, it must set forth “reasonable and prudent measures” that are necessary or appropriate to minimize take, as well as the “terms and conditions” that must be complied with by the action agency to implement such measures.<sup>20</sup> If the Service concludes in a biological opinion that jeopardy is likely to occur, it must prescribe “reasonable and prudent alternatives” to avoid jeopardy.<sup>21</sup>

After the issuance of a biological opinion and “where discretionary Federal involvement or control over the action has been retained or is authorized by law,” the agency must reinitiate formal consultation if, *inter alia*:

- the amount or extent of taking specified in the incidental take statement is exceeded;
- new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
- the identified action is subsequently modified in a manner that causes an effect to the listed species ... that was not considered in the biological opinion; or
- a new species is listed or critical habitat designated that may be affected by the identified action.<sup>22</sup>

The Ninth Circuit has confirmed that both the action agency and the consulting agency have a duty to reinitiate consultation.<sup>23</sup>

Section 7(d) of the ESA provides that once a federal agency initiates consultation on an action under the ESA, the agency, as well as any applicant for a federal permit, “shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section.”<sup>24</sup> The purpose of

---

<sup>18</sup> *Id.* § 402.02.

<sup>19</sup> *Id.*

<sup>20</sup> 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i).

<sup>21</sup> *Id.* §§ 402.02, 402.14(h)(3).

<sup>22</sup> 50 C.F.R. § 402.16.

<sup>23</sup> See *Salmon Spawning & Recovery All. v. Gutierrez*, 545 F.3d 1220, 1229 (9th Cir. 2008) (“The duty to reinitiate consultation lies with both the action agency and the consulting agency.”); *Envtl. Prot. Info. Ctr. v. Simpson Timber Co.*, 255 F.3d 1073 (9th Cir. 2001) (“The duty to reinitiate consultation lies with both the action agency and the consultation agency.”).

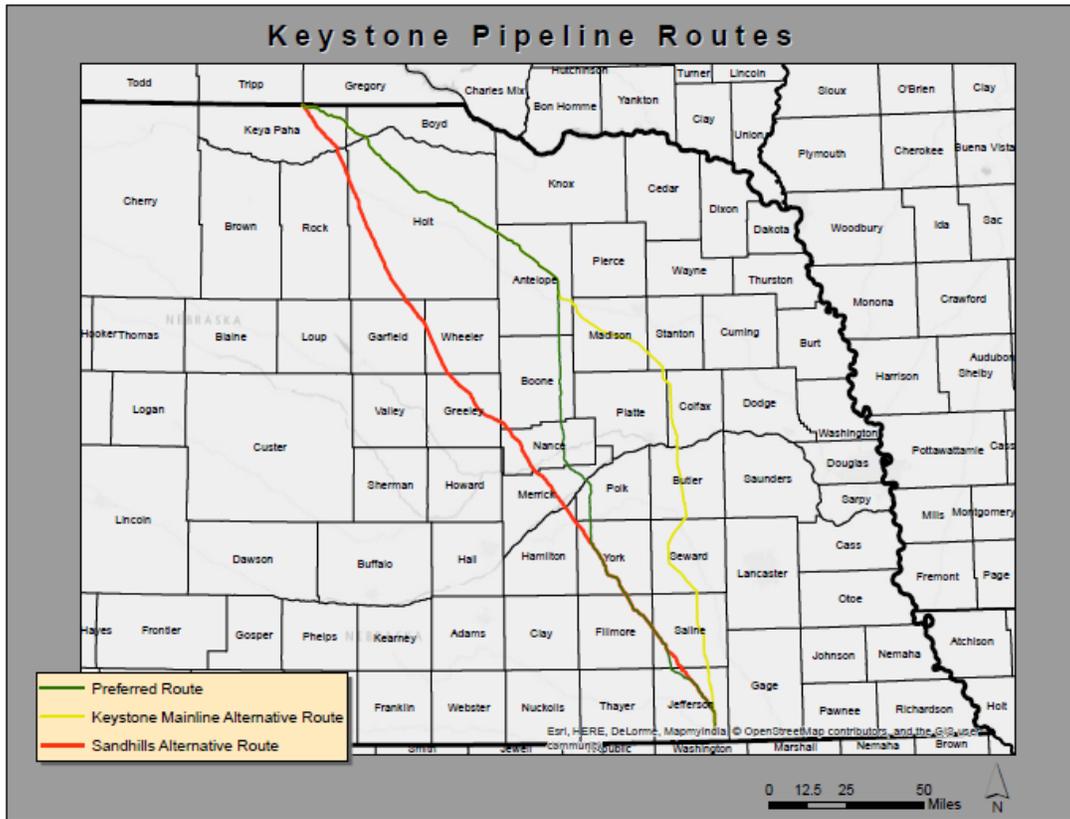
<sup>24</sup> 16 U.S.C. § 1536(d).

Section 7(d) is to maintain the environmental status quo pending the completion of consultation. Section 7(d) prohibitions remain in effect throughout the consultation period and until the federal agency has satisfied its duty under Section 7(a)(2) to insure that the action will not result in jeopardy to listed species or adverse modification of critical habitat.

Section 7(d) applies to agency actions that have not gone through, but were legally required to go through, formal consultation. Hence, if the Service unlawfully concurs in an action agency’s conclusion that the action will likely have no adverse effects, then a court may order the status quo to be preserved pursuant to Section 7(d) until the required procedures are completed and the listed species are safeguarded as the ESA requires.

**The State Department and Service Must Reinitiate Consultation**

On November 20, 2017, the Nebraska Public Service Commission approved the “Mainline Alternative” Route for the Keystone XL project. The Mainline Alternative Route is to the east of TransCanada’s “Preferred Route”:



The Mainline Alternative Route is not referenced in the State Department’s Biological Assessment or the Service’s Biological Opinion. It is not set forth as an alternative on any of the maps in those documents, and no discussion or analysis has been provided as to the impacts that construction and operation of the Keystone XL pipeline in that location would have on listed species. The new route goes through at least 5 different counties than the preferred alternative,

crosses several distinct water bodies, and would be longer, requiring an additional pump station and accompanying power line infrastructure. The approval of this route is therefore new information, which requires reinitiation of consultation.<sup>25</sup>

### **Additional Listed Species will be Affected with the Mainline Alternative Route**

The Mainline Alternative Route poses a risk of adverse effects to several species that were not considered in the prior, informal consultation documents for the Project. TransCanada conceded this in its testimony before the Nebraska Public Service Commission. In his rebuttal testimony for TransCanada, Jon A. Schmidt, Ph.D. explained what the company meant when it stated in its application that the Mainline Alternative Route would “[i]ncrease the crossing of the ranges of federally listed threatened and endangered species.” As Dr. Schmidt explained:

That statement was intended to mean that the number of federally and state listed threatened and endangered species ranges crossed by the Mainline Alternative Route is greater than the number of federally and state listed threatened and endangered species ranges crossed by the Preferred Route. Specifically, on the Mainline Alternative Route, the habitat ranges of four more threatened and endangered species would be crossed, and those species are the Pallid Sturgeon, the Topeka Shiner, the Sturgeon Chub, and the Lake Sturgeon. Those species’ ranges are avoided along the Preferred Route.<sup>26</sup>

Dr. Schmidt further acknowledged that the “Mainline Alternative Route will increase the crossing of highly erodible soils as compared to the Preferred Route.” These admissions further underscore the need for the Department and the Service to reinitiate consultation, as they provide “new information reveal[ing] effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered,” and constitute a modification that affects these listed species “that was not considered in the biological opinion.”<sup>27</sup> There can be no dispute that reinitiation is warranted to cover these species.

---

<sup>25</sup> 50 C.F.R. § 402.16. See *Gifford Pinchot Task Force v. USFWS*, 378 F.3d 1059, 1076-77 (9th Cir. 2004) (holding that discovery of new facts “mandates reinitiating formal consultations” and that “[the consulting agency] was obligated to reinitiate consultation pursuant to 50 C.F.R. Section 402.16”). Furthermore, the State Department clearly has retained “discretionary Federal involvement or control over the action,” given that the Project has not yet been built, and the cross-border permit issued by the Department states that it may be “terminated or amended at any time at the discretion of the Secretary of State or the Secretary’s delegate....” 50 C.F.R. § 402.16; *NRDC v. Jewell*, 749 F.3d 776, 784 (9th Cir. 2014) (“Section 7(a)(2)’s consultation requirement is triggered so long as a federal agency retains ‘some discretion’ to take action for the benefit of a protected species.”).

<sup>26</sup> See relevant portion of transcript attached hereto as Exhibit B. The full transcript is available at <http://www.psc.nebraska.gov/natgas/Keystone/Rebuttal%20Testimony/013%20Rebuttal%20Testimony%20-%20Schmidt%20w%20Exs%20A-F.pdf>.

<sup>27</sup> 50 C.F.R. § 402.16.

Furthermore, the potential for adverse impacts to these species requires that the State Department and Service undertake formal consultation.<sup>28</sup> The Mainline Alternative Route would require construction and operation of the pipeline through or near the aquatic habitats that these species rely on. Sediment from construction activities, a frac-out of drilling fluids during horizontal directional drilling (if used),<sup>29</sup> and leaks and spills from the pipeline all threaten these species, and could jeopardize their continued existence.

For example, the Topeka shiner is hovering on the brink of extirpation in Nebraska. According to the Service, the Topeka shiner was “once a common fish throughout its range but its presence has declined by about 70 percent at known collection sites during the last 40 to 50 years. Habitat destruction, sedimentation, and changes in water quality are thought to have caused the population decline.”<sup>30</sup> The Mainline Alternative Route would run very close to Taylor Creek, which is designated as critical habitat for the Topeka Shiner. Construction activities that cause sedimentation, or spills that affect water quality, could therefore be the deathknell for this endangered population.

The Mainline Alternative Route would also traverse known pallid sturgeon habitat along the Platte River. Sturgeon are very sensitive to harm from frac-outs, sedimentation, and oil spills, which can smother the benthic habitat they rely on for feeding and breeding and contaminate their food sources. The Service’s most recent five-year review for the pallid sturgeon notes that the “lower Platte River may be an important tributary for spawning.”<sup>31</sup> This pallid sturgeon population in the Platte River is one of the last remaining pallid sturgeon populations left on Earth, and would be decimated should a spill—such as the spill that occurred recently in South Dakota at the Keystone I pipeline—happen near, along, or downriver from the pipeline’s crossing of the Platte River south of Richland, Nebraska.

---

<sup>28</sup> The ESA’s threshold for triggering the formal consultation requirement is very low. *See* 51 Fed. Reg. 19,926, 19,949 (June 3, 1986).

<sup>29</sup> Drilling under the streams using HDD poses a threat of “frac-out,” which is when pressurized fluids and drilling lubricants escape the active bore, migrate through the soils and surface at or near the construction site. The Biological Assessment notes that “[f]rac-outs that may release drilling fluids into aquatic environments are more difficult to contain primarily because bentonite readily disperses in flowing water and quickly settles in standing water.” *See* State Department Biological Assessment at 2.0-50.

<sup>30</sup> USFWS, Topeka Shiner, Questions and Answers (available at <https://www.fws.gov/midwest/endangered/fishes/TopekaShiner/tosh-qas.html>).

<sup>31</sup> USFWS, 5-Year Review: Summary and Evaluation of Pallid Sturgeon (*Scaphirhynchus albus*) (2005). The 5-year review states that “[t]he importance of the lower Platte River for pallid sturgeon has been documented (Snook 2002, Swigle 2003). The largest factor affecting habitat in the lower Platte River is upstream water withdrawal.” *Id.* at 41. It is not yet clear whether TransCanada would be withdrawing water for HDD at the Platte River stream crossing. The 5-Year Review further states that “contaminant research suggests a link between environmental contaminants and potential reproductive problems in several sturgeon species (Feist et al. 2005; Koch et al. 2006).” *Id.* at 52. Whether the Project poses these risks to sturgeon must be assessed through formal consultation.

The Service summarized the threats to the species in its most recent recovery plan:

The Pallid Sturgeon is native to the Missouri and Mississippi rivers and adapted to the pre-development habitat conditions that historically existed in these rivers. These conditions generally can be described as large, freeflowing, warm-water, and turbid rivers with a diverse assemblage of dynamic physical habitats. Limiting factors include: 1) activities which affect in-river connectivity and the natural form, function, and hydrologic processes of rivers; 2) illegal harvest; 3) impaired water quality and quantity; 4) entrainment; and 5) life history attributes of the species (i.e., delayed sexual maturity, females not spawning every year, and larval drift requirements).<sup>32</sup>

Importantly, the effect of oil and gas development, and resulting oil and gas pipelines, on pallid sturgeon has recently been identified as a “potential new threat,” but not yet adequately studied:

Gas and Oil Pipelines: The federal authority for pipeline safety is the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration. This agency reports that there were 2.3 million miles of pipelines in the United States carrying natural gas and hazardous liquids (primarily petroleum, refined petroleum products, and other chemicals). Many pipelines cross rivers within the range of Pallid Sturgeon; some of which are buried under the river bed.

While not directly within the historical range of Pallid Sturgeon, the 2011 rupture of the Silvertip Pipeline crossing under the Yellowstone River serves as a reminder that accidental releases of hazardous materials can occur. Depending on the timing, magnitude, and the material leaked, a ruptured pipeline could pose a threat to Pallid Sturgeon.<sup>33</sup>

The State Department has prepared a Pipeline Risk Assessment and Environmental Consequence Analysis for Keystone XL, which claims that the “estimated spill risk occurrence within the flyway migration corridor is [an average of one spill every] 39 years or 0.026 incidences per year.”<sup>34</sup> Even if this is accepted, it still means that there will be spills over the course of the 50-year life of the Project. However, it has been more recently estimated that Keystone XL is likely to spill as frequently as about twice per year, every year, throughout its 50-year lifespan.<sup>35</sup>

---

<sup>32</sup> Fish and Wildlife Service, Revised Recovery Plan for the Pallid Sturgeon 6 (Jan. 2014).

<sup>33</sup> *Id.* at 40.

<sup>34</sup> DEIS at 3.0-20.

<sup>35</sup> John Stansbury, Ph.D., P.E., *Analysis of Frequency, Magnitude and Consequence of Worst-Case Spills from the Proposed Keystone XL Pipeline* 3 (available at [http://big.assets.huffingtonpost.com/keystone\\_spills.pdf](http://big.assets.huffingtonpost.com/keystone_spills.pdf)).

In fact, the history of oil spills on TransCanada’s “Keystone I” pipeline, which have far exceeded the company’s initial projections, cast further doubt on TransCanada’s spill projections for Keystone XL and suggests oil spills will actually be far more frequent than the company claims. On November 30, 2017, Keystone I—described by TransCanada as a state-of-the-art pipeline that would “meet or exceed world-class safety and environmental standards” and be operated in accordance with 51 special safety conditions—spilled over 200,000 gallons of crude oil on South Dakota prairie.<sup>36</sup> Keystone I has now spilled or leaked over 15 times, and has leaked “substantially more oil, and more often, in the United States than indicated in risk assessments the company provided to regulators.”<sup>37</sup> In a spill risk assessment provided by TransCanada before constructing the Keystone I pipeline, the company estimated the chance of a leak of more than 50 barrels to be “not more than once every seven to 11 years over the entire length of the pipeline in the United States.”<sup>38</sup> And yet Keystone I has had three significant leaks in the seven years it has been in operation— the recent 5,000 barrel spill in November and two spills of about 400 barrels each in 2016 and 2011.

Oil spills and other contamination of waterways (such as sediment loading or frac-outs during construction), as well as water withdrawals and the spread of diseases from construction and operation of Keystone XL, will adversely affect listed species, such as the pallid sturgeon, Topeka shiner, sturgeon chub, and lake sturgeon. While the likelihood of a spill at any particular crossing may be relatively low or hard to estimate, that does not suggest that harm cannot occur—especially if a spill were to occur near or upriver from critical breeding or feeding areas for these species. In fact, as the State Department’s Biological Assessment acknowledges:

The magnitude of spill effects varies with multiple factors, the most significant of which include the amount of material released, the size of the spill dispersal area, the type of spills, the species assemblage present, climate, and the spill response tactics employed.<sup>39</sup>

These concerns should be fully addressed by the State Department and the Service through formal ESA consultation, given the risk the Project now poses to these listed species.

---

<sup>36</sup> See *Keystone Pipeline Starts Deliveries to U.S. Midwest*, TransCanada (June 30, 2010) (available at <https://www.transcanada.com/en/announcements/2010-06-30keystone-pipeline-starts-deliveries-to-u.s.-midwest/>); *Washington Post*, *Keystone pipeline spills 210,000 gallons of oil on eve of permitting decision for TransCanada* (Nov. 16, 2017) (available at [https://www.washingtonpost.com/news/energy-environment/wp/2017/11/16/keystone-pipeline-spills-210000-gallons-of-oil-on-eve-of-key-permitting-decision/?utm\\_term=.03530c190524](https://www.washingtonpost.com/news/energy-environment/wp/2017/11/16/keystone-pipeline-spills-210000-gallons-of-oil-on-eve-of-key-permitting-decision/?utm_term=.03530c190524)).

<sup>37</sup> Reuters, *Keystone’s existing pipeline spills far more than predicted to regulators* (Nov. 27, 2017) (available at <https://www.reuters.com/article/us-usa-pipeline-keystone-spills/kestones-existing-pipeline-spills-far-more-than-predicted-to-regulators-idUSKBN1DR1CS>).

<sup>38</sup> *Id.*

<sup>39</sup> DEIS at 3.0-20.

## **New Information on Impacts to Cranes, Terns and Plovers Requires Reinitiation of Consultation**

The approval of the Mainline Alternative Route invalidates the State Department's prior assessment of the likelihood of harm to listed species in Nebraska, as well as the analysis of the cumulative effects of those impacts for the entire Project. This includes impacts to species that were determined "not likely to be adversely affected" by the Project, such as whooping cranes, interior least terns and piping plovers. This new route—which was not analyzed at all, and for which no surveys have been completed—requires the State Department and Service to revisit their prior determinations for these species.

For example, the Mainline Alternative Route would go through areas with significantly more interior least tern sightings,<sup>40</sup> as well as breeding habitat along the Platte River that was not analyzed by the agencies in their prior consultation documents. Similarly, the Mainline Alternative Route may pose a higher risk of harm to piping plovers breeding or nesting along the Platte River or other waterways that would be crossed by this new route—such as Union Creek and Shell Creek—which were not considered for the preferred alternative. The new route may therefore "affect listed species or critical habitat in a manner or to an extent not previously considered," and it is readily apparent that the project has been "modified in a manner that causes an effect to the listed species ... that was not considered in the biological opinion," since the route is significantly different and crosses distinct waterbodies.<sup>41</sup>

The same may be true for the whooping crane. While the Mainline Alternative Route would place a small portion of the pipeline route just outside the delineated migratory corridor, this does not mean that the potential for adverse impacts has been eliminated.<sup>42</sup> The telemetry data maintained by the Whooping Crane Partnership, of which the Service is a member, constitutes some of the best available science on whooping crane movement and habitat use, and this data illustrates how whooping cranes use the area around the mainline alternative route, especially where it crosses the Platte River, even in areas outside the official corridor.<sup>43</sup> Moreover, there is no indication from TransCanada so far as to where the pump stations and associated power lines would now be placed for the new Nebraska route, and therefore no way to fully assess the risk of harm to the species absent further analysis through Section 7 consultation. Nonetheless, given the proximity of cranes to the Project as shown in the telemetry data, it is evident that there is a high likelihood of harm to whooping cranes from construction and operation of Keystone XL, which must be fully assessed through formal consultation.

---

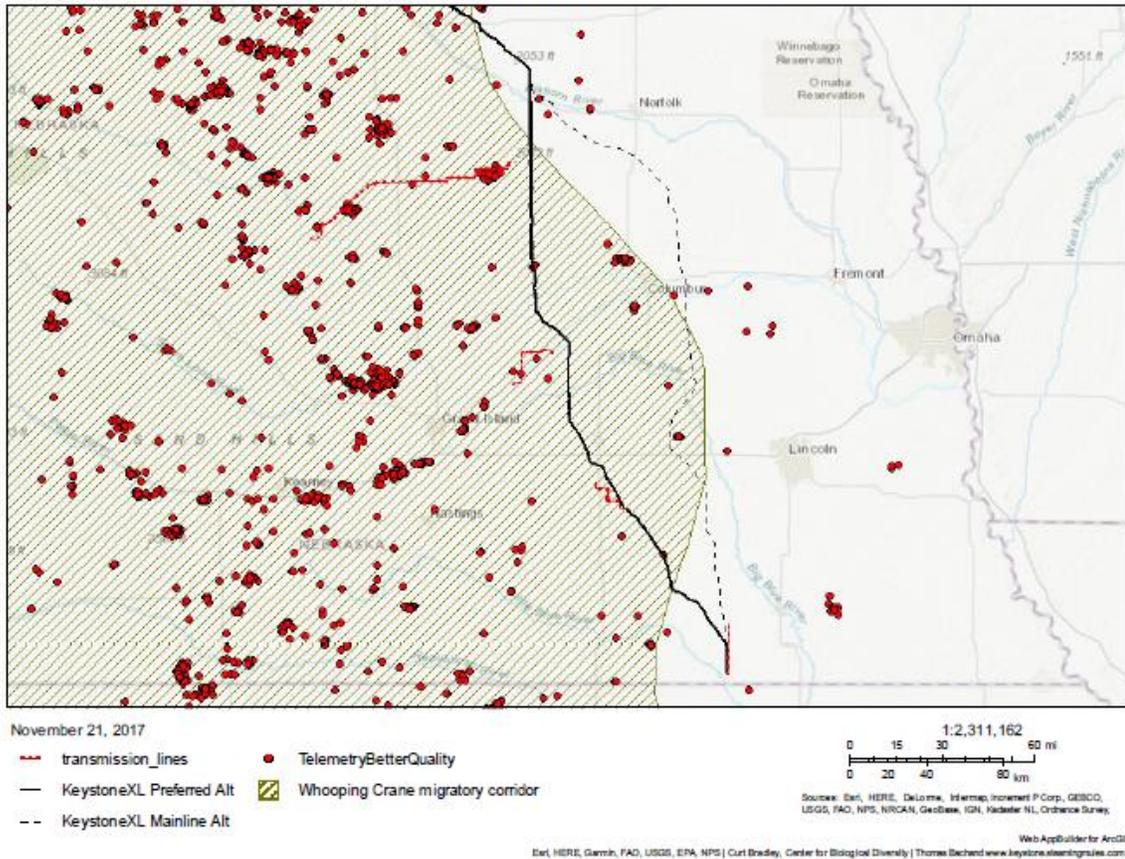
<sup>40</sup> As reported to eBird. See eBird.com.

<sup>41</sup> 50 C.F.R. § 402.16.

<sup>42</sup> Notably, the official "corridor" accounts for 95 percent of sightings, but that is based on older data. The telemetry data, gathered by the Whooping Crane Tracking Partnership, provides the best available science, and indicates that cranes do use areas outside the Service's mapped corridor.

<sup>43</sup> This data set was provided to the Conservation Groups by USGS through a FOIA request. That data set is being provided along with this letter, on a CD attached hereto.

### Mainline Alt - Whooping Crane Data



**Pursuant to Section 7(d) of the ESA, the State Department Cannot Allow Construction of Keystone XL until it Complies with ESA Section 7(a)**

For the reasons set forth in this letter, the State Department and the Service must reinitiate consultation on several new species, and reassess their determinations with regards to other species that may be adversely affected by the new Mainline Alternative Route. During consultation, no party may be allowed to commence any construction activities associated with the Project. Allowing Keystone XL’s construction (including route clearing and power line development) to begin before the State Department has complied with the requirements of Section 7(a)(2) of the ESA would be an irreversible or irretrievable commitment of resources that would foreclose the formulation or implementation of any reasonable and prudent alternative measures to minimize take of listed species, in violation of Section 7(d).<sup>44</sup> Construction activities would adversely affect, damage, and/or destroy habitat areas these protected species depend upon for survival, and foreclose available measures to minimize take of the species or destruction or adverse modification of the species’ habitat, such as alternative conservation measures. Pursuant to ESA Section 7(d), construction therefore cannot begin, and the status quo must be preserved, until the Department complies with Section 7(a)(2).

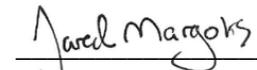
<sup>44</sup> 16 U.S.C. § 1536(d).

## Conclusion

On November 22, 2017, Judge Morris ruled against the Federal Defendants on motions to dismiss the ongoing litigation regarding the Department's and Service's compliance with the ESA and NEPA in approving Keystone XL.<sup>45</sup> The Judge's order made clear that the State Department's issuance of the cross-border permit for Keystone XL is subject to the requirements of NEPA and the ESA. Given this ruling, there can be no doubt that the Project may not move forward absent supplemental NEPA and ESA review.

For the forgoing reasons, the State Department and the Service must reinitiate Section 7 consultation for the Keystone XL Project, or they will be in direct violation of the Endangered Species Act. If these violations are not cured, the Conservation Groups intend to sue for declaratory and injunctive relief. This notice letter is prepared based on good faith information and belief. If you believe that anything set forth here is erroneous or inaccurate, please notify us promptly.

Sincerely,



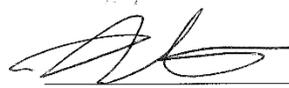
Jared M. Margolis  
Senior Attorney  
Center for Biological Diversity  
2852 Willamette St. #171  
Eugene, OR 97405  
(802) 310-4054  
jmargolis@biologicaldiversity.org  
For Center for Biological Diversity and  
Friends of the Earth



Jaclyn Prange  
Natural Resources Defense Council  
20 N. Wacker Dr. Ste. 1600  
Chicago, IL 60606  
(312) 651-7906  
jprange@nrdc.org  
For Bold Alliance and Natural Resources  
Defense Council

---

<sup>45</sup> See *N. Plains Res. Council v. Thomas*, CV-17-31-GF-BMM, 2017 U.S. Dist. LEXIS 193562 (Dist. MT. Nov. 22, 2017); *Indigenous Envtl. Network v. United States Dep't of State*, CV-17-29-GF-BMM, 2017 U.S. Dist. LEXIS 193546 (Dist. MT. Nov. 22, 2017).



Doug Hayes  
Staff Attorney  
Sierra Club  
1650 38th Street, Suite 102W  
Boulder, CO 80301  
(303) 449-5595  
[doug.hayes@sierraclub.org](mailto:doug.hayes@sierraclub.org)  
For Northern Plains Resource Council and  
Sierra Club

## **Exhibit A**



May 24, 2017

**By U.S. Certified Mail, return receipt requested, and email to:**

U.S. Department of State  
The Executive Office  
Office of the Legal Advisor  
600 19th St. NW Ste 5.600  
Washington, DC 20522-1705  
[no email available]

Thomas A. Shannon, Jr.  
Under Secretary of State for Political Affairs  
U.S. Department of State  
The Executive Office  
Office of the Legal Advisor  
600 19th St. NW Ste 5.600  
Washington, DC 20522-1705  
beroey@state.gov

**Cc:**

Ryan Zinke, Secretary of the Interior  
U.S. Department of the Interior  
1849 C Street, NW  
Washington, DC 20240-0001  
exsec@ios.doi.gov

Jim Kurth, Acting Director  
Office of the Director  
U.S. Fish and Wildlife Service  
Main Interior  
1849 C Street, NW Room 3331  
Washington, DC 20240-0001  
jim\_kurth@fws.gov

U.S. Fish and Wildlife Service  
Mountain-Prairie Regional Office  
134 Union Boulevard  
Lakewood, Colorado 80228-1807  
mountainprairie@fws.gov

Chief, Office of Law Enforcement  
Office of the Director  
U.S. Fish and Wildlife Service  
Main Interior  
1849 C Street, NW Room 3331  
Washington, DC 20240-0001  
lawenforcement@fws.gov

Bob Harms  
U.S. Fish and Wildlife Service  
Nebraska Field Office  
9325 South Alda Road  
Wood River, Nebraska 68883-9565  
robert\_harms@fws.gov

**Re: 60-Day Notice of Intent to Sue for Failure to Insure that Approval of Keystone XL Pipeline will not Jeopardize the Whooping Crane, Interior Least Tern, and Piping Plover, in Violation of Section 7 of the Endangered Species Act**

Dear Sirs/Madams:

This letter serves as formal notice from the Center for Biological Diversity, Friends of the Earth, Natural Resources Defense Council, Bold Alliance, Sierra Club, and Northern Plains Resource Council (collectively, the “Conservation Groups”) regarding their intent to file a lawsuit against the U.S. Department of State and Under Secretary Shannon in his official capacity (collectively, the “State Department” or “Department”), for failing to insure that

construction and operation of the Keystone XL Pipeline and related power-line infrastructure (“Keystone XL” or “the Project”) will not jeopardize the continued existence of the whooping crane, piping plover, and interior least tern (the “Listed Species”), in violation of Section 7 of the Endangered Species Act (“ESA”), 16 U.S.C. § 1536.

The Department has an independent duty to insure that any action that it funds, authorizes, or carries out is “not likely to jeopardize the continued existence of any endangered species or threatened species” or “result in the destruction or adverse modification” of critical habitat.<sup>1</sup> Construction and operation of Keystone XL, which were permitted, authorized, and/or carried out by the Department through its issuance of the cross-border permit, record of decision, and national-interest determination for the Project, not only “may affect” the Listed Species, but is likely to adversely affect those species. Yet, the State Department all but ignored some of the Project’s most adverse impacts. The Department’s determination—set forth in the December 2012 final Biological Assessment for Keystone XL (hereinafter the “Biological Assessment”)—that the Project is “not likely to adversely affect” whooping cranes, interior least terns, and piping plovers, ignores highly relevant threats from the Project and is contrary to the record, the best science available, and the Department’s own statements.

Keystone XL is likely to adversely affect the Listed Species by causing a proliferation of new power lines that will increase collision and predation risks to these species; by increasing the risk of oil spills; and by destroying or damaging habitat. These impacts will occur along the entire proposed route, in the United States as well as Canada. The State Department was accordingly required to undertake formal consultation with the U.S. Fish and Wildlife Service (“the Service”) before issuing its cross-border permit and supporting decision documents for Keystone XL. The Department’s failure to do so violated the ESA.

The State Department has sixty days to remedy the violations identified in this letter. If the Department does not promptly correct these violations, we intend to file a citizen suit and to seek appropriate declaratory and injunctive relief, as well as reasonable litigation costs and attorneys’ fees, for your violations of the ESA.<sup>2</sup>

## **I. The Department’s Duty to Insure No Jeopardy to Listed Species Under ESA Sections 7(a)(2) and 7(d)**

Congress enacted the ESA in 1973 to provide for the conservation of endangered and threatened fish, wildlife, plants, and their natural habitats.<sup>3</sup> The ESA imposes substantive and procedural obligations on all federal agencies with regard to listed and proposed species and their critical habitats.<sup>4</sup>

---

<sup>1</sup> 16 U.S.C. § 1536(a)(2).

<sup>2</sup> *See id.* § 1540(g).

<sup>3</sup> *See id.* § 1531. Congress defined “conservation” as “the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the Act] are no longer necessary.” *Id.* § 1532(3).

<sup>4</sup> *See id.* § 1536(a)(1), (a)(2), (a)(4); *id.* § 1538(a); 50 C.F.R. § 402.01.

Under Section 7 of the ESA, federal agencies must “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 . . . to be critical.”<sup>5</sup>

To “jeopardize” means to “engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.”<sup>6</sup> The definition of agency “action” is broad and includes activities carried out by agencies such as “the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid,” and “actions directly or indirectly causing modifications to the land.”<sup>7</sup> It encompasses the Department’s issuance of the March 23, 2017 cross-border permit and accompanying record of decision and national interest determination for Keystone XL. “Action area” includes “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.”<sup>8</sup>

The duty to insure no jeopardy is one of the ESA’s clearest cornerstones for the conservation of listed species. To insure compliance with this duty, Section 7(a)(2) and its implementing regulations set forth a detailed process that must be followed before agencies take or approve actions that may affect a threatened or endangered (*i.e.*, “listed”) species or its critical habitat. Fulfillment of this process is the only means by which an agency insures that its affirmative duties under Section 7(a)(2) are satisfied. In fulfilling the requirements of Section 7(a)(2) and the procedural requirements set forth in 50 C.F.R. Part 402, agencies must “use the best scientific and commercial data available.”<sup>9</sup>

Each federal agency must review its actions at “the earliest possible time” to determine whether any action “may affect” listed species or their critical habitat in the “action area.”<sup>10</sup> The term “may affect” is broadly construed to include “[a]ny possible effect, whether beneficial, benign, adverse, or of an undetermined character,” and thus is easily triggered.<sup>11</sup>

Pursuant to the consultation process, if the action agency concludes in a “biological assessment” that a proposed action is “not likely to adversely affect” a listed species that occurs in the action area—and the Service lawfully concurs in writing with the action agency’s determination—then the process is terminated and no formal consultation is required.<sup>12</sup> If the

---

<sup>5</sup> 16 U.S.C. § 1536(a)(2).

<sup>6</sup> 50 C.F.R. § 402.02.

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> 16 U.S.C. § 1536(a)(2).

<sup>10</sup> *See* 50 C.F.R. § 402.14(a).

<sup>11</sup> 51 Fed. Reg. 19,926, 19,949 (June 3, 1986).

<sup>12</sup> 50 C.F.R. §§ 402.12(k), 402.13(a), 402.14(b).

Service's concurrence in a "not likely to adversely affect" finding is inconsistent with the best available science or otherwise unlawful, however, any such concurrence must be set aside.<sup>13</sup>

If the action agency concludes that an action is "likely to adversely affect" listed species or critical habitat, it must enter into "formal consultation" with the Service.<sup>14</sup> The ESA's threshold for triggering the formal consultation requirement is very low.<sup>15</sup>

Formal consultation commences with the action agency's written request for consultation and concludes with issuance of a "biological opinion."<sup>16</sup> The biological opinion states the Service's opinion as to whether the effects of the action are "likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat."<sup>17</sup>

During formal consultation, the Service and the action agency must evaluate the "effects of the action," including all direct and indirect effects of the proposed action, plus the effects of actions that are interrelated or interdependent, added to all existing environmental conditions—that is, the "environmental baseline."<sup>18</sup> The environmental baseline includes the "past and present impacts of all Federal, State, or private actions and other human activities in the action area . . . ."<sup>19</sup> The effects of the action must be considered together with "cumulative effects," which are "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation."<sup>20</sup>

If the Service concludes in a biological opinion that jeopardy is likely to occur, it must prescribe "reasonable and prudent alternatives" to avoid jeopardy.<sup>21</sup>

If the Service concludes that an action is not likely to jeopardize listed species, it must set forth "reasonable and prudent measures" that are necessary or appropriate to minimize take, as well as the "terms and conditions" that must be complied with by the action agency to implement such measures.<sup>22</sup>

---

<sup>13</sup> See 5 U.S.C. § 706(2).

<sup>14</sup> 50 C.F.R. §§ 402.12(k), 402.14(a).

<sup>15</sup> See 51 Fed. Reg., *supra* note 11, at 19,949.

<sup>16</sup> See 50 C.F.R. §§ 402.02, 402.14(c), (g).

<sup>17</sup> *Id.* § 402.14(g)(4). To "jeopardize the continued existence of" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." *Id.* § 402.02.

<sup>18</sup> 50 C.F.R. §§ 402.02, 402.14.

<sup>19</sup> *Id.* § 402.02.

<sup>20</sup> *Id.*

<sup>21</sup> *Id.* §§ 402.02, 402.14(h)(3).

<sup>22</sup> 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i).

Section 7(d) of the ESA provides that once a federal agency initiates consultation on an action under the ESA, the agency, as well as any applicant for a federal permit, “shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section.”<sup>23</sup> The purpose of Section 7(d) is to maintain the environmental status quo pending the completion of consultation. Section 7(d) prohibitions remain in effect throughout the consultation period and until the federal agency has satisfied its duty under Section 7(a)(2) to insure that the action will not result in jeopardy to listed species or adverse modification of critical habitat.

Section 7(d) applies to agency actions that have not gone through, but were legally required to go through, formal consultation. Hence, if the Service unlawfully concurs in an action agency’s conclusion that the action will likely have no adverse effects, then a court may order the status quo to be preserved pursuant to Section 7(d) until the required procedures are completed and the listed species are safeguarded.

## **II. Factual Background**

### **A. The Listed Species**

#### **Whooping Crane**

The whooping crane (*Grus americana*) is a critically endangered bird that was listed as endangered on March 11, 1967.<sup>24</sup> Whooping cranes are bi-annual migratory birds that occur only in North America. They spend summer in central Canada and winter on the Texas coast.<sup>25</sup> The State Department’s Biological Assessment notes that following decades of recovery efforts, the population of whooping cranes in 2006 was merely an estimated 338 birds: 215 in the self-sustaining Aransas-Wood Buffalo National Park population (the Texas-central Canada migratory population at issue here), and 123 captive-raised birds that have been released in Florida in an attempt to rebuild the eastern United States’ population.<sup>26</sup> The Service’s most recent available estimates put the population at 350 or fewer birds.<sup>27</sup> Studies have found that in order to be genetically viable, the population needs to reach at least 1,000 individuals.<sup>28</sup> Given the species’ low numbers, slow reproduction and other factors, many in the scientific community believe that

---

<sup>23</sup> 16 U.S.C. § 1536(d).

<sup>24</sup> 32 Fed. Reg. 4,001, 4,001 (Mar. 11, 1967).

<sup>25</sup> See U.S. Fish & Wildlife Serv., *Species Profile for Whooping Crane (Grus Americana)* (available at <https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=B003>).

<sup>26</sup> Biological Assessment at 3.0-13.

<sup>27</sup> Wade Harrell & Mark Bidwell, *Report on Whooping Crane Recovery Activities 330* (2016) (available at [https://www.fws.gov/uploadedFiles/WC%20Recovery%20Activities%20Report\\_Sept-April%202016\\_Appendices.pdf](https://www.fws.gov/uploadedFiles/WC%20Recovery%20Activities%20Report_Sept-April%202016_Appendices.pdf)).

<sup>28</sup> See Thomas V. Stehn and Tom Wassenich, *Whooping Crane Collisions with Power Lines: An Issue Paper, Proc. North Am. Crane Workshop*, at 25 (2008) (available at <http://digitalcommons.unl.edu/nacwgproc/203>).

the loss of even a few cranes, or even one breeding adult, could jeopardize the continued existence of this iconic species.<sup>29</sup>

The twice-yearly migration of the Aransas-Wood Buffalo National Park wild population takes the whooping crane across the Great Plains states of the central United States, including Montana, North Dakota, South Dakota, and Nebraska.<sup>30</sup> The whooping cranes typically leave their wintering grounds in Texas sometime between late March and early May, and begin to migrate south from Canada sometime after mid-September, the majority arriving in Texas between late October and mid-November.<sup>31</sup> The primary migration corridor, encompassing 95% of known sightings of whooping cranes, is about 2,400 miles long and 220 miles wide.<sup>32</sup>

During their migration, whooping cranes use a variety of habitats closely associated with river bottoms, prairie grasslands, seasonally or semi-flooded palustrine wetlands, shallow portions of reservoirs (for roosting), and undisturbed, submerged sandbars commonly found in river channels.<sup>33</sup> These habitats are critical for whooping crane feeding patterns while migrating; these birds primarily feed on frogs, fish, insects, and various types of plants often found in submerged areas.<sup>34</sup> They travel during the day, in pairs or small flocks, and stop daily to feed and rest.

Whooping cranes are monogamous, forming pairs as early as 3 years of age (though most pairs begin breeding around 5 years of age). They have substantial site fidelity to their breeding territories and spend nearly a month incubating their eggs until hatching occurs in late May to early June. Though four eggs are laid on average per pair, the survival rate of chicks per pair is generally less than one chick annually. This slow reproductive potential has been a major issue in trying to recover whooping crane populations.

Whooping cranes were listed due to threats caused by destruction of nesting habitat, low population numbers, slow reproductive potential, and pressures on wintering habitat caused by humans. More current threats include collisions with manmade objects like powerlines and fences, shooting, chemical spills, predation, habitat destruction, and a loss of genetic material.

The primary cause of whooping crane mortality is collisions with power lines.<sup>35</sup> Whooping cranes rely on sight to avoid obstacles they may encounter along their migration route, particularly those encountered at take-off and landing. According to a 2008 scientific study, “cranes and other birds apparently collide with lines because they do not see them in time

---

<sup>29</sup> See *id.* at 25 (“[T]he species is in a race against time as the limited genetic material that survived the bottleneck continues to be lost in each generation . . . . Thus, it is important to accelerate the rate of species recovery to minimize genetic loss.”).

<sup>30</sup> See *Species Profile for Whooping Crane (Grus Americana)*, *supra* note 25.

<sup>31</sup> Biological Assessment at 3.0-13.

<sup>32</sup> *Species Profile for Whooping Crane (Grus Americana)*, *supra* note 25.

<sup>33</sup> Biological Assessment at 3.0-13.

<sup>34</sup> *Species Profile for Whooping Crane (Grus Americana)*, *supra* note 25.

<sup>35</sup> See Stehn, *supra* note 28, at 25.

to avoid them and suffer traumatic injury from the collision itself, or from the resulting impact of falling to the ground.”<sup>36</sup> These encounters with power lines usually occur as whooping cranes “are making short, low altitude flights between foraging and roosting areas,” which “frequently occur near sunrise and sunset when light levels are diminished.”<sup>37</sup>

Opportunities for whooping cranes to collide with power lines are therefore multiplied when these power lines are suspended across or located near river channels, wetlands, or other low-lying wet areas that serve as whooping cranes’ primary foraging or roosting habitats.<sup>38</sup>

Whooping crane mortality via power line collision has been observed under even optimal weather conditions.<sup>39</sup> However, inclement weather associated with poor visibility (fog, dense cloud cover, precipitation) and reduced flight control (high-velocity winds) is “one of the most frequently described factors affecting collisions and can increase the probability of collisions.”<sup>40</sup> Conditions such as high-velocity winds have even been shown to buffet whooping cranes into “fully visible power lines with which they are quite familiar, but which they cannot avoid because they cannot maintain flight control.”<sup>41</sup>

Therefore, while marking power lines with bird diverters is commonly used to reduce the potential for collisions, these devices do not prevent or eliminate the potential for harm. In fact, most studies have found that bird diverters are around 50-60% effective, and thus do not come close to eliminating the collision risks for whooping cranes.<sup>42</sup>

Other threats to the crane from construction and operation of Keystone XL include habitat loss and oil spills. These threats are discussed further at Part III below.

### **Interior least tern**

The Interior least tern (*Sternula antillarum*) is the smallest of the terns found in North America, and was listed as endangered in 1985.<sup>43</sup> The interior least tern is a migratory bird that winters along the Gulf Coast and breeds in areas across the Midwest and Great Plains, from April through August. Least terns nest in small colonies, and their nests are typically shallow depressions scraped into open sandy areas, gravelly patches, or exposed stream or river beds.

---

<sup>36</sup> *Id.* at 27.

<sup>37</sup> *Id.* at 29.

<sup>38</sup> *Id.* at 31.

<sup>39</sup> *Id.*

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> See, e.g., Robert K. Murphy et al., *Effectiveness of Avian Collision Averters in Preventing Migratory Bird Mortality from Powerline Strikes in the Central Platte River, Nebraska 1 (2008-2009)* (available at [http://www.fwspubs.org/doi/suppl/10.3996/052016-JFWM-037/suppl\\_file/052016-jfwm-037.s6.pdf?code=ufws-site](http://www.fwspubs.org/doi/suppl/10.3996/052016-JFWM-037/suppl_file/052016-jfwm-037.s6.pdf?code=ufws-site)).

<sup>43</sup> See 50 Fed. Reg. 21,784, 21,784 (May 28, 1985).

Historically, terns nested on sparsely-vegetated sandbars along major rivers in the Central United States. Much of their natural habitat has already been lost because of broad-scale changes to our natural river systems that include dams and reservoirs, river channelization, bank stabilization, and water diversion.<sup>44</sup> For example, many natural, wide river channels dotted with sandbars, which are terns' preferred habitat, have been replaced by narrow, armor-banked rivers with highly altered flows. These alterations, combined with predicted changes in weather patterns due to climate change and increasing demands for water across the tern's range, are likely to further alter the terns' natural habitats and make their conservation even more challenging.<sup>45</sup>

Current threats to interior least terns include predation, especially for nesting areas that are close to places where raptors (such as eagles and owls) can perch; oil spills; and construction and other human activities in and along rivers and sandbars, which can disturb nesting least terns and cause them to abandon their nests. These threats are discussed further at Part III below.

### **Piping Plover**

The Northern Great Plains population of piping plovers (*Charadrius melodus*) is listed as a threatened species under the ESA.<sup>46</sup> Piping plovers are migratory birds that breed in the spring and summer in northern United States and Canada.<sup>47</sup> They arrive in the Northern Great Plains to breed around mid-March and fly south by mid to late August.<sup>48</sup> Their habitat includes wide, flat, open, sandy beaches with little vegetation.<sup>49</sup> Nesting areas include small creeks or wetlands.<sup>50</sup> The plover's nesting range has become increasingly small over the years.<sup>51</sup> Additionally, plovers are very sensitive to the presence of humans; too much disturbance causes the parent birds to abandon their nests.<sup>52</sup> Eggs and young birds are also sometimes crushed by people (either on foot or in vehicles) using the areas where the birds nest.<sup>53</sup>

The Northern Great Plains population of piping plovers nests on the shorelines and islands of alkali (salty) lakes in North Dakota and Montana, and on sandbar islands and reservoir shorelines along the Missouri River and reservoirs in Montana, North Dakota, South Dakota, and Nebraska. In Nebraska, plovers nest on the Platte River system, Niobrara, Loup, and Elkhorn

---

<sup>44</sup> See U.S. Fish & Wildlife Serv., *Least Tern (Interior Population) Fact Sheet* (available at <https://www.fws.gov/midwest/endangered/birds/leasttern/IntLeastTernFactSheet.html>).

<sup>45</sup> *Id.*

<sup>46</sup> 50 Fed. Reg. 50,726, 50,726 (Dec. 11, 1985).

<sup>47</sup> U.S. Fish & Wildlife Serv., *Piping Plover Fact Sheet* (available at <https://www.fws.gov/midwest/endangered/pipingplover/pipingpl.html>).

<sup>48</sup> See 50 Fed. Reg., *supra* note 46, at 50,726.

<sup>49</sup> *Piping Plover Fact Sheet*, *supra* note 47.

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

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

<sup>52</sup> *Id.*

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

Rivers. Most of the Northern Great Plains plovers winter along the Texas coast, extending into Mexico.

Starting in the 1930's, dam construction, water diversion and water withdrawals changed river flow regimes and drastically reduced the amount of available nesting habitat. Human-caused changes to the landscape have increased the number and type of predators, decreasing nest success and chick survival. Human disturbance, beach development, and sea level rise have all drastically decreased the amount of wintering habitat available to the piping plover.

Habitat destruction or degradation and poor breeding success due to predation are major reasons for the plover's population declines. The construction and operation of reservoirs on the Missouri River and other river systems has resulted in a loss of sandbar habitat. Plovers using the remaining sandbars are susceptible to predation, direct disturbance by people, oil spills, and water-level fluctuations. Indeed, predation is a major factor affecting the birds as changes in the natural landscape historically used by plovers have increased populations of predators, particularly mammals and raptors.<sup>54</sup> These threats are discussed further at Part III below.

## **B. Keystone XL**

Keystone XL (as proposed and described in the Biological Assessment and other federal environmental review documents discussed here) includes the construction and operation of a 36-inch diameter tar sands crude oil transmission pipeline with associated facilities (pump stations, main line valves, power lines, and other equipment) that would move massive quantities of tar sands crude oil from Canada to the Gulf Coast via Steele City, Nebraska. The Project would consist of approximately 1,204 miles of new pipeline: 329 miles in Canada and 875 miles in the United States from Montana to Nebraska.<sup>55</sup>

Keystone XL will be built in a construction right-of-way that will be 110 feet wide for most stretches of the proposed route.<sup>56</sup> To access the right-of-way, approximately 191 temporary access roads will be built and maintained throughout construction, which the Project's developer estimates could take two or more years.<sup>57</sup> Some of these access roads will be permanently maintained to access the pipeline for maintenance.<sup>58</sup>

There are approximately 1,073 waterbody crossings along the Project's route, including 56 perennial streams, 974 intermittent streams, 28 canals, 4 artificial impoundments, and 11 artificial or natural lakes, ponds, or reservoirs.<sup>59</sup> Perennial waterbodies along the pipeline

---

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

<sup>55</sup> Biological Opinion at 12.

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

<sup>57</sup> *Id.* at 17, 22; TransCanada Corporation May 5, 2017 Q1 2017 Earnings Call transcript (available at <https://seekingalpha.com/article/4069942-transcanada-trp-q1-2017-results-earnings-call-transcript>) (Paul Miller remarks).

<sup>58</sup> Biological Opinion at 17.

<sup>59</sup> Biological Assessment at 2.0-49.

corridor will be crossed using one of four techniques: the open-cut wet method, dry flume method, dry dam-and-pump method, or (for a small number of the largest water crossings) hydraulic directional drilling (“HDD”).<sup>60</sup>

Additionally, approximately 20 pump stations, consisting of up to 6 electric pumps, a 33-foot communication tower, and a small maintenance building, will be built along the KXL corridor in Montana, South Dakota, Nebraska, and Kansas.<sup>61</sup> Each of these pump stations will require the construction of power lines, to supply electrical power to the stations. This will result in the construction of approximately 375 miles of new power lines.<sup>62</sup> The Service’s concurrence and the Biological Assessment refer to the planned installation of avian markers, deflectors, or bird flight diverters (“BFDs”) along the power lines near these pumping stations.<sup>63</sup> However, it is unclear whether (or where precisely) the power-line providers will be required to install these devices. Furthermore, an undisclosed number of pump stations and associated power lines would be constructed in Canada, and it remains unclear whether any such conservation measures would be employed to protect listed species north of the border.

According to the January 2014 Final Environmental Impact Statement for Keystone XL (“FEIS”), for which the State Department served as lead agency, construction of the new power lines needed to power the pump stations will cause collisions with migratory birds such as whooping cranes, since conservation measures may reduce risks, but will not prevent or eliminate harm.<sup>64</sup> The Service has previously estimated that there are 74 locations where new power lines to pump stations present collision hazards for migrating whooping cranes.<sup>65</sup> In addition, the FEIS states that these power lines are likely to increase predation of other listed species, including the interior least tern and piping plover, by providing more vantage perches for raptors.<sup>66</sup>

The Biological Assessment for Keystone XL was prepared by a contractor for TransCanada, on behalf of the State Department and other federal agencies. The final document, dated December 21, 2012, concluded that the Project is “not likely to adversely affect” the whooping crane, interior least tern, or piping plover. On May 15, 2013, the Service’s Grand Island office released a “biological opinion” (the “Biological Opinion”). In the Biological Opinion, the Service “concurred” with the Biological Assessment’s conclusion that Keystone XL was “not likely to adversely affect” the Listed Species.<sup>67</sup>

---

<sup>60</sup> *Id.*

<sup>61</sup> Biological Opinion at 17-18.

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

<sup>63</sup> *Id.* at 25.

<sup>64</sup> FEIS at 4.8-19.

<sup>65</sup> U.S. Fish & Wildlife Serv., *Rationale for Concurrence with Species NLAA Determinations in the Final Biological Assessment for the Keystone XL Pipeline Project*.

<sup>66</sup> FEIS at 4.8-11.

<sup>67</sup> Biological Assessment at 1.0-6, 1.0-7; Biological Opinion at 9. While the Service has concurred with the State Department’s “not likely to adversely affect” determination for the Listed Species, that concurrence was premised on the same erroneous reliance on the inadequate conservation measures that formed the basis for the State Department’s conclusions. For the same reasons provided herein, that concurrence is not adequately supported, is

Because the Department and the Service have erroneously determined that Keystone XL is “not likely to adversely affect” the Listed Species, the agencies have not engaged in the “formal consultation” process that would provide for a fuller consideration of threats to the Listed Species, including those outlined in this letter. The Department has therefore failed to insure, as it must, that its actions will not jeopardize the continued existence of the Listed Species.<sup>68</sup>

### **III. Keystone XL’s Threats to Listed Species and the State Department’s Failure to Fully and Adequately Analyze Those Threats**

#### **A. Power line collisions**

The Biological Assessment acknowledges that the Project will negatively impact species protected under the ESA through increased collisions with power lines:

Future electrical power transmission lines and the distribution lines that would serve pump stations and MLVs of the proposed Project or any other future projects could incrementally increase the collision hazard for the four federally protected or candidate migratory birds. Cumulative collision mortality effects would be most detrimental to the whooping crane, interior least tern, and piping plover[.]<sup>69</sup>

\*\*\*

The construction of new electrical power line segments, especially those across riverine roosting habitats (e.g., Platte River in Nebraska), wetland roosting habitats, or between roosting habitat and nearby foraging habitat including wetlands and grain fields would incrementally increase the collision hazard for migrating whooping cranes because a portion of the proposed Project area is located within the flyway migration corridor for this species. A total of 0.75 mile of emergent wetlands and 0.08 mile of riverine/open water habitats would be crossed by distribution lines to pump stations within states where power distribution lines for pump stations are within the flyway migration corridor.<sup>70</sup>

The FEIS further acknowledges that “[p]ower lines associated with the proposed Project are collision hazards to migrant whooping cranes ....”<sup>71</sup> Importantly, it also appears to admit that the power lines would likely result in take of the species, noting that bird diversion devices (also known as “bird diverters” or “BFDs”) “*may reduce* crane collisions and mortality from power lines,” but conceding that such devices will not *prevent or eliminate* this harm.<sup>72</sup>

---

inconsistent with the best available science, and is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the ESA, and may not be relied on by the State Department.

<sup>68</sup> 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

<sup>69</sup> Biological Assessment at 2.0-77.

<sup>70</sup> *Id.* at 3.0-21.

<sup>71</sup> FEIS at 4.8-18.

<sup>72</sup> *Id.* at 4.8-19 (emphasis added).

The Biological Assessment, however, never adequately analyzes these impacts; nor does the Service's concurrence. The Biological Assessment, for example, merely states:

The transmission line, electrical distribution lines, and substations could result in long-term increased bird collisions, bird predation, and habitat loss. However, with implementation of conservation measures, it is not expected that these lines would have cumulative impacts on [protected bird species].<sup>73</sup>

The State Department provides no data to support this conclusion. There is no attempt to quantify the number of potential collisions from the power lines associated with the Project, and no similar discussion of the efficacy of the proposed conservation measures in terms of actual number of takes (or other adverse effects) avoided. Furthermore, the State Department failed to consider relevant data—including whooping crane sighting and telemetry data—to support its conclusions, and failed to address the threats to the Listed Species from power line construction (or other features of Keystone XL's construction and operation) in Canada.

It is well documented that the primary cause of whooping crane mortality is collisions with powerlines.<sup>74</sup> The State Department, however, failed to utilize the best available science in determining the potential for impacts to whooping cranes and other birds from construction and operation of the Project. In making its “not likely to adversely affect” determination, the State Department improperly relied on power providers installing bird diverters as a primary conservation measure to support its conclusion that whooping cranes will not be affected by collisions with power lines.<sup>75</sup> The Service relied on the same measure. The agencies' reliance on bird diverters was clearly erroneous.

Although bird diverters may reduce the potential for collisions under certain conditions, they are wholly ineffective when they are not visible, such as during fog events, or at low light levels, such as mornings and evenings when whooping cranes are landing or taking off. These conditions are the precise conditions in which a whooping crane is already most susceptible to power line collision.

The scientific literature shows that diverters are often ineffective at preventing collisions, preventing only 50-60% of collisions.<sup>76</sup> The State Department did not address this “best available science” in reaching the conclusions presented in the Biological Assessment. Since there are certainly times when the BFDs do not help to prevent collisions, and since the literature indicates that the diverters fail to prevent all collisions even when they prevent some, there can be little doubt that power line collisions will still occur.

---

<sup>73</sup> Biological Assessment at 2.0-78.

<sup>74</sup> See Stehn, *supra* note 28, at 25.

<sup>75</sup> Biological Assessment at 3.0-24.

<sup>76</sup> See Rafael Barrientos et al., *Wire Marking Results in a Small but Significant Reduction in Avian Mortality at Power Lines: A BACI Designed Study*, PLoS ONE, at 4 (2012) (available at <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032569>); Murphy et al., *supra* note 422, at 2.

The record indicates that the Project does indeed pose a high risk of harm from collisions. According to the Biological Assessment, Montana, South Dakota, and Nebraska each contain suitable stop-over sites for whooping cranes within the construction area of the Project.<sup>77</sup> In fact, a majority of the proposed Project route in South Dakota and Nebraska is directly within the 95-percent central flyway whooping crane migration corridor.<sup>78</sup> Just over 102 miles of the pipeline route occurs within the center of the corridor where the majority (75%) of whooping-crane sightings have been documented.<sup>79</sup>

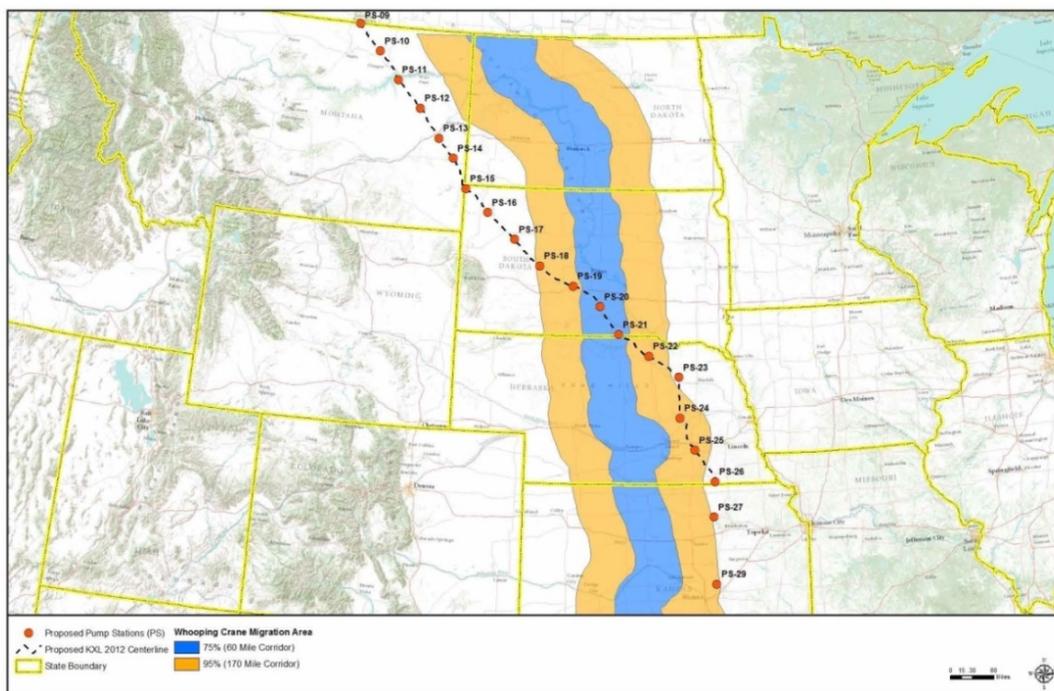


Figure 1. Central Flyway Whooping Crane Migration Corridor for the Aransas-Wood Buffalo Population.<sup>80</sup>

Therefore, power lines associated with the Project are collision hazards to migrating whooping cranes. Even if power lines are marked with bird diverters, as the Biological Assessment assumes, collisions are near-inevitable given the scope and location of the Project within the whooping crane migration corridor.

Despite its conclusion to the contrary, the Biological Assessment appears to acknowledge this fact and includes information from 2009 studies by the Service and University of Nebraska researchers, which documented “migratory bird mortalities, including cranes, from collisions with two existing 69-kV transmission[] lines that cross the Platte River.”<sup>81</sup> An earlier study estimated that, during one migration period, “between 165 and 210 sandhill cranes did not

<sup>77</sup> See Biological Assessment at 3.0-14.

<sup>78</sup> See *id.* at 3.0-17. The 95% label means that, according to USFWS sightings, approximately 95% of the migrating population flies within this flyway corridor. *Id.* at 3.0-14.

<sup>79</sup> *Id.* at 3.0-17, -19.

<sup>80</sup> *Id.* at 3.0-17.

<sup>81</sup> *Id.* at 3.0-20.

survive collisions with the two power lines” in question.<sup>82</sup> Although no evidence of whooping crane mortality was observed during that study, “[w]hooping cranes are presumably even more susceptible to striking power lines than sandhill cranes . . . because of their larger body size and wing span, slower wing beat, and relative lack of maneuverability.”<sup>83</sup> Thus, the construction of miles of new power lines through the heart of their migration corridor is especially concerning.

The severity of the threats posed by powerlines is compounded by the fact that many of the power line segments proposed to serve Keystone XL will have to cross riverine roosting and wetland roosting and foraging habitat.<sup>84</sup> The Service reported in 2010 that the proposed transmission lines would cross suitable migration stop-over habitat for migrating whooping cranes; indeed, “new transmission lines for 8 pump stations fall within the 75 percent or 95 percent whooping crane migration corridors.”<sup>85</sup> Because of this, the Biological Assessment determined that “future electrical power transmission lines and the distribution lines that would serve pump stations and MLVs of the proposed Project . . . could incrementally increase the collision hazard for . . .” whooping cranes.<sup>86</sup> The Biological Assessment further admits that bird diverters “*may* reduce crane collisions,” suggesting that such collisions are still likely to occur.<sup>87</sup> This belies the Biological Assessment’s conclusion that Keystone XL is “not likely to adversely affect” whooping cranes.

Importantly, research has found that “[p]ower lines dividing wetlands used for roosting from grain fields used for feeding caused the most collisions for cranes because these circumstances encouraged crossing the lines at low altitude several times each day.”<sup>88</sup> We have examined the area within two miles of the proposed power line locations identified in the FEIS, and where whooping-crane sightings have been reported. This analysis showed multiple roosting and feeding areas located within two miles on both sides of the power lines, and several wetland areas frequented by whooping cranes in close proximity to the lines, indicating a high potential for collisions, contrary to the erroneous findings in the Biological Assessment.

## **B. Predation**

In the Biological Assessment, the State Department recognized that power lines increase the potential for predation of protected species, by increasing the opportunity for raptor perching:

---

<sup>82</sup> *Id.* Sandhill cranes are a species closely related to whooping cranes that often serve as a surrogate species when studying the problems associated with whooping crane population recovery. Stehn, *supra* note 28, at 27.

<sup>83</sup> Biological Assessment at 3.0-20; Stehn, *supra* note 28, at 28.

<sup>84</sup> *See* Biological Assessment at 3.0-21.

<sup>85</sup> *Id.* at 3.0-21 to -22.

<sup>86</sup> *Id.* at 3.0-22.

<sup>87</sup> *Id.* at 3.0-20 (emphasis added).

<sup>88</sup> Stehn, *supra* note 288, at 31.

[P]erches provided by towers and poles could increase the cumulative predation mortality for ground nesting birds, including the ... interior least tern, piping plover, and Sprague's pipit.<sup>89</sup>

The State Department assumed that pole top raptor guards would be used to mitigate the potential for increased predation of listed species, such as piping plovers and least terns.<sup>90</sup> The installation of these devices appears to be the basis on which the State Department (and the Service in its concurrence) claims that the Project is not likely to adversely affect the Listed Species from increased predation.

The State Department claims, and the Service appears to agree, that raptor perching would be "minimize[d] . . . in accordance with the Avian Power Line Interaction Committee (APLIC), Suggested Practices for Avian Protection on Power Lines (APLIC 1996)."<sup>91</sup> This document is outdated and has been replaced with a 2006 version, which was readily available at the time the State Department and Service undertook their analysis, but was ignored by the agencies.

By relying on outdated information, the agencies violated their ESA duties to "use the best scientific and commercial data available" to determine whether listed species are likely to be jeopardized by the action.<sup>92</sup> Had the agencies reviewed the current version of the APLIC Suggested Practices, it would have been clear to them that perch discouragers "are intended to move birds from an unsafe location to a safe location and do not prevent perching."<sup>93</sup> The manual explains that these devices are effective at protecting raptors from electrocution, by keeping them away from certain dangerous areas on a pole; however, they are not effective in preventing perching generally across a line, and therefore their use would not appreciably reduce the potential increased predation of listed species that is directly attributable to the Project.

The Project will therefore undoubtedly result in increased predation of protected species, by increasing the availability of raptor perches. The proposed mitigation will not reduce this risk, and the State Department's assumption that it would, in reliance on an outdated edition of the APLIC Suggested Practices, is misplaced and does not reflect the best science available to it and the Service. The Department has failed to provide any analysis of the actual numbers of Listed Species which may be taken through predation as a result of Keystone XL's construction and operation, and thereby disregarded its duty to insure that the Project will not jeopardize the Listed Species' continued existence.

---

<sup>89</sup> See Biological Assessment at 3.0-22.

<sup>90</sup> See *id.* at 3.0-4.

<sup>91</sup> *Id.*

<sup>92</sup> 16 U.S.C. § 1536(a)(2).

<sup>93</sup> Avian Power Line Interaction Comm., *Suggested Practices for Avian Protection on Power Lines* 17 (2006) (available at [http://www.aplic.org/uploads/files/2643/SuggestedPractices2006\(LR-2\).pdf](http://www.aplic.org/uploads/files/2643/SuggestedPractices2006(LR-2).pdf)) (emphasis added).

### C. Habitat loss

Keystone XL would adversely affect the Listed Species by reducing and fragmenting the habitat on which they depend, and introducing invasive species into the area. As the Biological Assessment notes:

The whooping crane may experience long-term impacts associated with riparian areas that may be used for roosting and feeding . . . . The regeneration of revegetated areas may be slow which may cause long-term roosting and feeding habitat loss. Future projects in the area that reduce and fragment preferred roosting and feeding habitat for the whooping crane may provide the potential for additive cumulative effects to this species. Incremental impacts to streams and riparian habitats from future linear project construction and the accidental spread of exotic aquatic invasive plants and animals could increase cumulative impacts to threatened and endangered species habitat.<sup>94</sup>

The Biological Assessment further notes that “federally protected species may be impacted by habitat loss resulting from construction of the Bakken Marketlink Project, along with future projects in the area that reduce and fragment preferred habitat for these species.”<sup>95</sup> The Biological Assessment adds that impacts from the “construction and operation of the connected actions (Bakken Marketlink Project, Big Bend to Witten 230-kV Transmission Line, and Electrical Distribution Lines and Substations) would be long term or permanent.”<sup>96</sup>

Yet, the State Department assumes that this potentially permanent “habitat loss would be mitigated and any additional potential habitat loss would likely require similar conservation methods and mitigations, thus reducing overall cumulative impacts on these species.”<sup>97</sup> This assumption reveals the agency’s utter failure to properly consider the effects of the action, as required by the regulations implementing the ESA.<sup>98</sup> Since the State Department has admitted that transmission lines in this area can impact federally protected species, it cannot rely on unsupported assumptions regarding mitigation measures to conclude that the cumulative effects of the action will be sufficiently mitigated.

While the proposed conservation measures will hopefully reduce the impacts to these imperiled species, there is nothing in the Biological Assessment or elsewhere to suggest that the potentially permanent habitat impacts that may occur from the proposed and connected actions, and the cumulative impacts of this and other projects, will not adversely affect these Listed Species. In order to show this, the State Department is supposed to assess the “effects of the action” by setting forth the potential impacts and adding them to the environmental baseline,

---

<sup>94</sup> Biological Assessment at 3.0-22 to -23.

<sup>95</sup> *Id.* at 3.0-23.

<sup>96</sup> *Id.*

<sup>97</sup> *Id.* (emphasis added).

<sup>98</sup> 50 C.F.R. § 402.02 (the agency must consider the “direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline”).

which allows for an analysis of the actual impacts that the action would have to the protected species. This analysis does not appear in the Biological Assessment (or the Service’s Biological Opinion and concurrence), in clear violation of the ESA. Therefore, the State Department cannot possibly have determined the actual impacts the Project would have on species due to habitat loss.

The Project would also cause fragmentation of the landscape, through the construction of the pipeline itself, the many roads and power lines associated with it, as well as the camps and staging areas necessary for construction. The Biological Assessment recognizes that construction activities “may also hinder the movement of wildlife.”<sup>99</sup> It further acknowledges that animals may “fall into the trench,” and that TransCanada would need to leave either short areas of unexcavated trench, or areas where the trench is excavated and replaced with minimal compaction and a ramp on each side, “to allow livestock and wildlife to cross the trench safely.”<sup>100</sup> The Biological Assessment does not, however, provide any indication that this could be accomplished without harm to protected species, such as the plovers and terns whose nests may be impacted by construction activities, or that the potential impacts to these species would be mitigated with this methodology. The State Department also never explained what the potential long-term impacts of this habitat fragmentation would be to the Listed Species, and never addressed impacts from habitat loss in Canada.

#### **D. Oil Spills**

While the State Department has attempted to downplay the risk of oil spills and leaks from KXL, the analysis provided by the State Department and the Service in the Biological Assessment and Biological Opinion leave little doubt that spills will occur during the life of the project. The State Department provided a Pipeline Risk Assessment and Environmental Consequence Analysis, which indicates that the “estimated spill risk occurrence within the flyway migration corridor is [an average of one spill every] 39 years or 0.026 incidences per year.”<sup>101</sup> Even if this is accepted—and the Conservation Groups believe that this low estimate is unsupported—it still suggests that there will indeed be spills over the course of the 50-year life of the project. In fact, it has been estimated that Keystone XL is likely to spill as frequently as about twice per year, every year, throughout its 50-year lifespan.<sup>102</sup>

---

<sup>99</sup> Biological Assessment at 2.0-43.

<sup>100</sup> *Id.*

<sup>101</sup> *Id.* at 3.0-20.

<sup>102</sup> John Stansbury, Ph.D., P.E., *Analysis of Frequency, Magnitude and Consequence of Worst-Case Spills from the Proposed Keystone XL Pipeline 3* (available at [http://big.assets.huffingtonpost.com/keystone\\_spills.pdf](http://big.assets.huffingtonpost.com/keystone_spills.pdf)). It is important to note that TransCanada’s Keystone I Pipeline was described as a state-of-the-art pipeline that would “meet or exceed world-class safety and environmental standards” and be operated in accordance with 51 special safety conditions. See *Keystone Pipeline Starts Deliveries to U.S. Midwest*, TransCanada (June 30, 2010) (available at <https://www.transcanada.com/en/announcements/2010-06-30keystone-pipeline-starts-deliveries-to-u.s.-midwest/>). Yet that pipeline leaked at least 35 times during its first year of operation. See Ken Ilgunas, *South Dakota Oil Spill Reveals Major Pipeline Problems*, Time (Apr. 14, 2016) (available at <http://time.com/4292856/south-dakota-oil-spill/>).

Oil spills from Keystone XL will adversely affect the Listed Species. The Biological Assessment notes that “[d]irect contact with a crude oil spill could result in adverse effects to whooping cranes due to plumage oiling and crude oil ingestion from contaminated plumage and prey,”<sup>103</sup> and that “direct contact with a crude oil spill could result in adverse effects to piping plovers due to plumage oiling, crude oil ingestion from contaminated plumage and prey, and crude oil transfer to eggs and young.”<sup>104</sup>

The Biological Assessment, however, provides no analysis of the actual impacts that would occur from even one spill event. The State Department merely claims that:

While these exposure risks have the potential to cause adverse effects to individuals, the probability of adverse effects to whooping cranes are unlikely due to the low probability of a spill, low probability of the spill coinciding with the presence of migrating whooping cranes or migration habitats, and low probability of a whooping crane contacting the spilled product.<sup>105</sup>

The Biological Assessment also states that:

A spill resulting from a leak in the proposed pipeline is unlikely to affect the piping plover. The major rivers that contain suitable breeding habitat in Nebraska would be crossed by HDD. In the unlikely event of a leak, the crude oil would need to penetrate a significant amount of overburden before reaching the river, thereby reducing the risk in some cases of crude oil reaching the river and thereby reducing the potential for piping plover exposure.<sup>106</sup>

This, however, ignores the actual harm that is likely to occur from even one spill event, and the harm that would result to species such as whooping cranes and interior least terns if even a few individual birds are impacted. It also fails to acknowledge that some of the smaller rivers that will not be drilled under (and where a leak near a river crossing could reach the river immediately) may also contain valuable habitat. While the likelihood of a spill at any particular crossing may be relatively low, that does not suggest that harm cannot occur – especially if a spill were to occur near breeding, nesting or feeding areas for the Listed Species in the U.S. or Canada. In fact, the Biological Assessment acknowledges that:

The magnitude of spill effects varies with multiple factors, the most significant of which include the amount of material released, the size of the spill dispersal area, the type of spills, the species assemblage present, climate, and the spill response tactics employed.<sup>107</sup>

---

<sup>103</sup> Biological Assessment at 3.0-20.

<sup>104</sup> *Id.* at 3.0-67.

<sup>105</sup> *Id.* at 3.0-20.

<sup>106</sup> *Id.* at 3.0-67.

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

The State Department does not, however, identify the range of potential spill volumes that are possible—merely noting that 80% of historical spill volumes are less than 50 barrels—and does not discuss the potential spill dispersal area. Assuming that spills would be below 50 barrels simply because 80% of historical spills were below this amount ignores the very real potential for larger spills. The State Department’s failure to even discuss the potential worst-case spill event renders the Biological Assessment incomplete.

The Biological Assessment’s assertion that the potential impacts to whooping cranes, plovers and terns are insignificant because of the “low probability of a spill” is also belied by the information provided by the State Department in its initial 2011 environmental impact statement (2011 EIS), which was omitted from the FEIS it finalized in 2014. In the 2011 document, the State Department admits that “[i]n spite of the safety measures included in the design, construction, and operation of the proposed Project, spills are likely to occur during operation over the lifetime of the proposed Project. Crude oil could be released from the pipeline, pump stations, or valve stations.”<sup>108</sup> The 2011 EIS further states that “[a]lthough the leak detection system would be in place, some leaks might not be detected by the system. For example, a pinhole leak could be undetected for days or a few weeks if the release volume rate were small and in a remote area.”<sup>109</sup> In 2011, the State Department concluded that based on the available data, “there could be from 1.18 to 1.83 spills greater than 2,100 gallons per year for the entire Project. The estimated frequency of spills of any size ranged from 1.78 to 2.51 spills per year.”<sup>110</sup>

The Biological Assessment also omits discussion of the spill response tactics that could be employed and the potential impacts of those spill response actions on the Listed Species. For example, spill response may include cleanup operations that can destroy bird nests. Vehicle activity can crush piping plover and interior least tern nests and eggs, cause harassment of birds, and leave tire ruts that inhibit movement of species. Yet, there is no analysis anywhere in the Biological Assessment (or Biological Opinion) of these potential impacts to the Listed Species.

Other potential spill risks are likewise insufficiently analyzed. For example, drilling under the streams using HDD poses a threat of “frac-out,” which is when pressurized fluids and drilling lubricants “escape the active bore, migrate through the soils,” and “surface at or near the construction site.”<sup>111</sup> The Biological Assessment notes that “Frac-outs that may release drilling fluids into aquatic environments are more difficult to contain primarily because bentonite readily disperses in flowing water and quickly settles in standing water.”<sup>112</sup>

There is no analysis, however, of the actual potential for frac-out, or the effects such an event might have on the Listed Species. The State Department asserts that “[w]hile the HDD method poses a small risk of frac-out, potential releases would be contained by [best management practices] that are described within the HDD contingency plans required for drilled

---

<sup>108</sup> 2011 EIS at ES-8 (emphasis added).

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

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

<sup>111</sup> Biological Assessment at 2.0-50.

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

crossings that the pipeline contractor prepares prior to construction.” It is not clear how the State Department could have assessed the risks without even seeing these pre-construction plans. The State Department never explains how the monitoring would take place, how much of the frac fluid may be released prior to triggering a shutdown in the event of a frac-out, the potential for containment once a breach occurs, what the purported “mitigation measures” are, and most importantly, makes no mention of how a frac-out event and response actions would affect species and habitats. This is yet another example of the State Department’s failure to fully examine Keystone XL’s considerable direct, indirect and cumulative impacts on Listed Species and their habitat before issuing its cross-border permit.

#### **IV. Violations**

##### **A. The State Department has failed to insure that Keystone XL will not jeopardize the Listed Species, in violation of ESA Section 7(a)**

Section 7(a)(2) of the ESA requires federal agencies to consider the effects of their actions to insure that they are not likely to jeopardize the continued existence of endangered or threatened species.<sup>113</sup> The only way for an action agency like the State Department to satisfy its duties under this section is to complete the procedural requirements set forth in the ESA and its implementing regulations, and in doing so, to rely on the best scientific information available.<sup>114</sup>

As set forth in detail above, the State Department has acknowledged that Keystone XL may adversely affect the Listed Species through power line collisions, habitat loss, increased predation, and spills. However, it failed to fully analyze these serious threats through formal consultation, erroneously concluding that Keystone XL is not likely to adversely affect the Listed Species and that formal consultation was unnecessary. In the Biological Assessment, the State Department declined to fully analyze the effects of Keystone XL’s power lines to any Listed Species on the basis that they may be considered at a later time by local, non-federal power providers, even though the power lines are indisputably “interrelated or interdependent” with the pipeline and thus an integral part of the Project.<sup>115</sup> It remains unclear whether the proposed conservation measures that the State Department relied on would even be enforceable, given that the non-federal power providers are not subject to the requirements of ESA Section 7.

The State Department also failed to consider the best available science, including whooping crane sighting and movement data (e.g., from the Whooping Crane Tracking Partnership), showing where cranes are in relation to the proposed location of Keystone XL’s power lines and other associated infrastructure, and erroneously relied on inadequate conservation measures (i.e., bird diverters) to avoid formal consultation on the Project’s impacts to Listed Species. The Department has also completely ignored the harm that may occur to the Listed Species from Keystone XL’s construction and operation in Canada, even though this activity is a necessary part of the pipeline and would be “interrelated or interdependent” with

---

<sup>113</sup> 16 U.S.C. § 1536(a)(2).

<sup>114</sup> *Id.*; 50 C.F.R. Part 402.

<sup>115</sup> *See id.* § 402.02.

construction and operation in the U.S., and could have comparably serious direct and indirect effects on the Listed Species.<sup>116</sup>

As set forth above, the State Department has not provided sufficient data to support its conclusions, and made no attempt to quantify or analyze the potential harm to the Listed Species associated with the Project. As noted, the threshold for triggering formal consultation is very low, and a Biological Opinion that meaningfully accounts for and addresses the action's adverse impacts on each listed species is mandated unless it can be clearly established that a proposed action is not likely to adversely affect a particular species. The State Department has not met this burden, and has failed to insure that Keystone XL will not jeopardize the continued existence of the Listed Species, in direct violation of Section 7(a)(2) of the ESA.

**B. Pursuant to Section 7(d) of the ESA, the State Department cannot allow construction of Keystone XL until it complies with ESA Section 7(a)**

Allowing Keystone XL's construction to begin before the State Department has complied with the requirements of Section 7(a)(2) of the ESA would be in direct violation of Section 7(d), which prevents any irreversible or irretrievable commitment of resources that would foreclose the formulation or implementation of any reasonable and prudent alternative measures to minimize take of listed species.<sup>117</sup>

For the reasons set forth in this letter, the Department did not fulfill its ESA Section 7 duties before issuing its March 23, 2017 cross-border permit and other decision documents for Keystone XL, and the ESA consultation process for the Project has not been properly completed. Allowing TransCanada or the power line providers to commence construction of Keystone XL (or any parts thereof) in the U.S. or Canada would adversely affect, damage, and/or destroy habitat areas the Listed Species depend upon for survival, and foreclose available measures to minimize take of the Listed Species or destruction or adverse modification of the Species' habitat, such as alternative locations for the Project and conservation measures such as burying of power lines. Construction cannot begin, and the status quo must be preserved, until the Department complies with Section 7(a)(2).

**V. Conclusion**

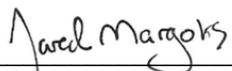
For the forgoing reasons, the State Department has violated Section 7 of the Endangered Species Act, and remains in violation of the Act, because it has issued a cross-border permit, record of decision and national-interest determination for Keystone XL that purport to authorize construction and operation of the Project in reliance on an inadequate and incomplete review of its threats to Listed Species. If these violations are not cured, the Conservation Groups intend to sue for declaratory and injunctive relief. This notice letter is prepared based on good faith information and belief. If you believe that anything set forth here is erroneous or inaccurate, please notify us promptly.

---

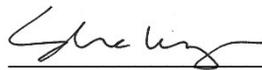
<sup>116</sup> *See id.*

<sup>117</sup> 16 U.S.C. § 1536(d).

Sincerely,



Jared M. Margolis  
Senior Attorney  
Center for Biological Diversity  
2852 Willamette St. #171  
Eugene, OR 97405  
(802) 310-4054  
jmargolis@biologicaldiversity.org  
For Center for Biological Diversity and  
Friends of the Earth



Selena Kyle  
Senior Attorney  
Natural Resources Defense Council  
20 N. Wacker Dr. Ste. 1600  
Chicago, IL 60606  
(312) 651-7906  
skyle@nrdc.org  
For Bold Alliance and Natural Resources  
Defense Council



Doug Hayes  
Staff Attorney  
Sierra Club  
1650 38th Street, Suite 102W  
Boulder, CO 80301  
(303) 449-5595  
doug.hayes@sierraclub.org  
For Northern Plains Resource Council and  
Sierra Club

## **Exhibit B**

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION ) APPLICATION NO. OP-0003  
OF TRANSCANADA KEYSTONE )  
PIPELINE, LP FOR ROUTE APPROVAL )  
OF THE KEYSTONE XL PIPELINE )  
PROJECT PURSUANT TO THE MAJOR )  
OIL PIPELINE SITING ACT, )

---

**REBUTTAL TESTIMONY OF**  
**JON A. SCHMIDT, PH.D.**

STATE OF FLORIDA )  
 )ss.  
COUNTY OF WALTON )

1 **Q: Are you the same Dr. Schmidt who testified as part of Keystone’s Application in**  
2 **written testimony dated February 13, 2017?**

3 A: Yes.

4 **Q: Since your testimony was submitted, have you identified clarifications to your**  
5 **testimony which need to be made?**

6 A: Yes.

7 **Q: What clarifications are necessary?**

8 A: First, in the Application on pages 8 and 61, there is a statement that the Keystone  
9 Mainline Alternative Route would “[i]ncrease the crossing of the ranges of federally-  
10 listed threatened and endangered species.” That statement was intended to mean that  
11 the number of federally and state listed threatened and endangered species ranges  
12 crossed by the Mainline Alternative Route is greater than the number of federally and  
13 state listed threatened and endangered species ranges crossed by the Preferred Route.  
14 Specifically, on the Mainline Alternative Route, the habitat ranges of four more

15 threatened and endangered species would be crossed, and those species are the Pallid  
16 Sturgeon, the Topeka Shiner, the Sturgeon Chub, and the Lake Sturgeon. Those  
17 species' ranges are avoided along the Preferred Route.

18 **Q: Are other clarifications necessary?**

19 A: Yes, second, the chart in Table 2-1 is incomplete.

20 **Q: How so?**

21 A: The number of acres of erodible soils listed in the chart is not correct, because some of  
22 the NRCS data was not downloaded completely before the analysis was performed.

23 **Q: Why is the chart incorrect?**

24 A: When we downloaded the GIS data from the NRCS for the chart, for unknown reasons,  
25 the information was only partially downloaded.

26 **Q: Have you updated Table 2-1?**

27 A: Yes.

28 **Q: Is Exhibit A attached to this testimony a true and accurate version of the updated  
29 Table 2-1 for the Application?**

30 A: Yes.

31 **Q: What is the significance of the updated table?**

32 A: Table 2-1 now accurately reflects that the Mainline Alternative Route will increase the  
33 crossing of highly erodible soils as compared to the Preferred Route, which is one of  
34 the reasons why the Preferred Route is more preferable to the Mainline Alternative  
35 Route as reflected on pages 8 and 61 of the Application.

36 **Q: Have you read the pre-filed direct testimony of Dr. Paul A. Johnsgard, Ph.D.?**

37 A: Yes.