ARTICLES

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The Keystone XL Pipeline: Improper Reliance on Weak Conservation Measures for Endangered Species Protection

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INTRODUCTION

The proposed TransCanada Keystone XL Pipeline Project (KXL) would cut through the heartland of the United States, from the U.S.-Canadian border near Morgan, Montana, to Steele City, Nebraska.[1] KXL would consist of approximately 876 miles of new, thirty-six-inch diameter pipeline,[2] along with twenty new pump stations.[3] To power these pump stations, KXL would demand nearly 2,400 kilovolts and approximately 378 miles of new power lines.[4] In addition, a 110-foot-wide construction right-of-way is needed along the proposed pipeline path.[5] Some segments will require "temporary workspace areas" for special construction techniques, such as wetland crossings and horizontal directional drilling—in total, an estimated 1,206 acres of ground disturbance.[6] Further, KXL would require 1,226 acres for pipe storage sites, railroad sidings, and contractor yards,[7] as well as over 500 acres for construction campsites.[8]

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1 BUREAU OF OCEANS & INT'L ENVTL. & SCIENTIFIC AFFAIRS, U.S. DEP'T OF STATE, 2012 BIOLOGICAL ASSESSMENT, *reprinted in* FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE KEYSTONE XL PROJECT app. H2 at 2.0-2 (2014) [hereinafter 2012 BIOLOGICAL ASSESSMENT], *available at* http://keystonepipeline-xl.state.gov/finalseis/index.htm. Steele City, Nebraska, sits on the southeast border of the state and connects to the existing Cushing Extension pipeline. *See id.*

2 *Id.*; BUREAU OF OCEANS & INT'L ENVTL. & SCIENTIFIC AFFAIRS, U.S. DEP'T OF STATE, DRAFT SUPPLEMENTARY ENVIRONMENTAL IMPACT STATEMENT FOR THE KEYSTONE XL PIPELINE PROJECT 2.1-1 (2013) [hereinafter DRAFT SUPPLEMENTARY EIS], *available at* http://keystonepipeline-xl.state.gov/draftseis. The project is fairly evenly divided between Montana (285.65 miles), South Dakota (315.29 miles), and Nebraska (274.44 miles). DRAFT SUPPLEMENTAL EIS, *supra* note 2, at 2.1-39.

3 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 2.0-2, -15; DRAFT SUPPLEMENTARY EIS, *supra* note 2. The stations include communication towers (approximately thirty-three feet in height), a small maintenance building, parking area, and backup generator, among other things. 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 2.0-31. Because the pump stations require an "uninterruptable power supply," in the case of power failure, each pump station will have a backup generator with fuel storage tanks as well. *Id.*

4 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 2.0-54 to -55; DRAFT SUPPLEMENTARY EIS, *supra* note 2, at 2.1-81 to -82 (calculated from Table 2.1-19: Electrical Power Supply Requirements for Pump Stations). At least twenty separate private power districts or cooperatives will construct the transmission lines. 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at app. A (Letters of Section 7 Consultation from Power Providers).

5 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 2.0-17; DRAFT SUPPLEMENTARY EIS, *supra* note 2.

6 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 2.0-17 to -18.

7 *Id.* app. H2 at 2.0-18. One of these stockpile sites is in North Dakota, constituting fifty-six acres. DRAFT SUPPLEMENTARY EIS, *supra* note 2, at 2.1-25.

8 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 2.0-16 to -17.

Altogether, KXL would be a massive project, with an equally massive impact on the environment. Of particular importance are the potential effects on the ten listed and candidate species in the KXL area—the American burying beetle, black-footed ferret, greater sage-grouse, interior least tern, northern swift fox, pallid sturgeon, piping plover, Sprague's pipit, western prairie fringed orchid, and whooping crane.[9] TransCanada, the State Department, and the United States Fish and Wildlife Service (FWS) have failed to properly consider the impacts on these imperiled species under the Endangered Species Act (ESA), improperly relying on weak conservation measures in order to dismiss the significance of KXL's impacts on these imperiled species.

I
ENDANGERED SPECIES ACT & SECTION 7 CONSULTATION

The ESA is a "comprehensive scheme with the 'broad purpose' of protecting endangered and threatened species."[10] Congress' plain intent in enacting the ESA was "to halt and reverse the trend toward species extinction."[11] In doing so, the ESA requires that "all Federal departments and agencies *shall* seek to conserve endangered species and threatened species and *shall* utilize their authorities in furtherance of [these] purposes."[12] Endangered and threatened species are "afforded the highest of priorities."[13] Endangered species, species that are "in danger of extinction throughout all or a significant portion of

9 *Id.* app. H2 at 1.0-6 to -7, Table 1.3-1. The ten listed and candidate species excludes the four species that the Department concluded that KXL would not affect—Gray wolf, Eskimo curlew, Topeka shiner, and Blowout penstemon—because further review showed these species were not in the project area, *id.* at 1.0-9 to -10, and includes the Northern swift fox, an endangered species the Department excluded from its review in the 2012 Biological Assessment. *See* LORI ANN BURD ET AL., CTR. FOR BIOLOGICAL DIVERSITY, IN HARM'S WAY 2, 18 (2013), *available at* http://www.biologicaldiversity.org/campaigns/no_keystone_xl/pdfs/In_Harms_Way.pdf; *see also* 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 1.0-6 to -7, Table 1.3-1; Complaint for Declaratory and Injunctive Relief, Ctr. For Biological Diversity v. U.S. Fish & Wildlife Serv., No. 1:14-cv-00059 (D.C. Cir. 2014) (requesting that the FWS conduct a search for all records on endangered northern swift fox that will be threatened by KXL), *available at* http://www.biologicaldiversity.org/campaigns/no_keystone_xl/pdfs/Northern_Swift_Fox_FOIA_Complaints_Jan_16_2014.pdf.

10 Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt., 698 F.3d 1101, 1106 (9th Cir. 2012) (quoting Babbitt v. Sweet Home, 515 U.S. 687, 698 (1995)).

11 Tenn. Valley Auth. v. Hill, 437 U.S. 153, 184 (1978).

12 16 U.S.C. § 1531(c)(1) (2012) (emphasis added).

13 *Tenn. Valley Auth.*, 437 U.S. at 174.

its range,"[14] and threatened species, species that are "likely to become an endangered species within the foreseeable future,"[15] are listed for protection pursuant to section 4 of the ESA.[16] Protections for endangered and threatened species are the same, procedurally and substantively, under the Act.[17] Candidate species, species which the FWS has determined should be listed as threatened or endangered but are not yet listed due to higher priority listing actions,[18] have "no legal protection" under the Act.[19] Nonetheless, the FWS strongly recommends that federal agencies consider the effects of proposed projects to these imperiled, but not yet formally protected, species.[20]

The ESA's "institutionalized caution" toward protected species is implemented, in large part, through the interplay of sections 7 and 9 of the statute.[21] Section 9 prohibits the "take" of any listed species.[22] The definition of take includes any actions that "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any listed species.[23] "Harm" is further defined to include "significant habitat modification" that "actually kills or injures wildlife by significantly impairing essential behavioral patterns."[24] Violators of section 9 are subject to civil and criminal penalties.[25]

Section 7 of the ESA "imposes an affirmative duty to prevent violations of [s]ection 9 upon federal agencies."[26] This section requires all federal agencies to "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

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14 16 U.S.C. § 1532(6).

15 *Id.* § 1532(20).

16 *Id.* § 1533.

17 *See id.* § 1536.

18 U.S. FISH & WILDLIFE SERV. & NAT'L MARINE FISHERIES SERV., ENDANGERED SPECIES CONSULTATION HANDBOOK at xi (1998) [hereinafter ESA HANDBOOK], *available at* http://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf.

19 *Id.* at 3-7.

20 *Id.*

21 Sierra Club v. Marsh, 816 F.2d 1376, 1388–89 (9th Cir. 1987).

22 16 U.S.C. § 1538(a)(1)(B).

23 *Id.* § 1532(19).

24 Babbitt v. Sweet Home, 515 U.S. 687, 691 (1995) (quoting 50 C.F.R. § 17.3 (2013)).

25 16 U.S.C. § 1540(a)–(b).

26 Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife, 273 F.3d 1229, 1238 (9th Cir. 2001) (citing 16 U.S.C. § 1536(a)(2)).

of such species."[27] To comply with section 7's mandate, a federal agency whose action triggers section 7 obligations must undergo consultation before it authorizes, funds, or carries out any project which may affect listed species.

The consultation process begins with informal consultation, where the federal agency (action agency) preparing to authorize, fund, or carry out an action prepares a biological assessment to determine whether the proposed action may affect listed species or critical habitat.[28] The first step in this process is determining whether listed species may be present in the action area.[29] If so, the action agency is required to "evaluate the potential effects of the action" on the species and critical habitat to determine if such species and habitat are "likely to be adversely affected by the action."[30] The action agency will make findings regarding the potential impact of the project on the listed species in a biological assessment. These findings include "no effect," "not likely to adversely affect," (NLAA finding), and "likely to adversely affect," (LAA finding).[31] Biological assessments may also contain survey results "to determine if listed or proposed species are present or occur seasonally"; experts' views on the species; review of literature; an "analysis of the effects of the action on the species and habitat, including consideration of cumulative effects"; and alternative actions the agency may take instead.[32]

The action agency's biological assessment must consider the "effects of the action," which includes direct and indirect effects on the species or critical habitat, including the effects of other interrelated and interdependent activities.[33] Indirect effects are effects caused by the proposed action that come later in time but are still "reasonably certain to occur."[34] Interrelated actions are actions "that are part of a larger action and depend on the larger action for their

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27 16 U.S.C. § 1536(a)(2).

28 *Id.* § 1536(c)(1); 50 C.F.R. §§ 402.12, .14(a). The federal action agency "shall review its actions at the earliest possible time" when determining the effects on listed species and critical habitat. 50 C.F.R. § 402.14(a).

29 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12(c).

30 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12(a).

31 ESA HANDBOOK, *supra* note 18, at 3-12 to -13.

32 50 C.F.R. § 402.12(f).

33 *Id.* § 402.02.

34 *Id.*

justification."[35] Interdependent actions are actions that have no independent utility apart from the proposed action.[36] All of these various effects are considered along with the environmental baseline[37] and cumulative effects[38] to determine the overall effect to the listed species.[39]

If the action agency determines in its biological assessment that the proposed action will have "no effect" or is "not likely to adversely affect" any listed species or critical habitat, the expert agency—the FWS for terrestrial species and National Marine Fisheries Service for marine species and anadromous fish[40]—must concur in writing.[41] In reviewing the assessment, the FWS will evaluate all potential effects, direct and indirect, on listed species in the project area and will then issue "no effect," NLAA, or LAA findings for each respective species.[42] If the FWS issues (and/or concurs with) a "no effect" or NLAA finding, informal consultation is complete.[43] In this case, the agencies have fulfilled their obligations under the ESA. If, however, the FWS does not concur with the action agency's "no effect" findings, or concurs with or issues an LAA finding for listed species, formal consultation is required.[44]

The formal consultation process requires the expert agency to prepare a biological opinion advising the action agency as to the effects of the proposed action. This includes whether the proposed action, "taken together with cumulative effects," is likely to jeopardize species or adversely modify critical habitat.[45] The FWS will review the information made available in the biological

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35 *Id.*

36 *Id.*

37 ESA HANDBOOK, *supra* note 18, at 4-22 to -23. Environmental baseline includes "the past and present impacts of all Federal, State, or private actions and other human activities in an action area." *Id.* at xiv.

38 50 C.F.R. § 402.02 (defining cumulative effects as the "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") (emphasis added).

39 *See id.*

40 *See id.* § 402.01(b); ESA HANDBOOK, *supra* note 18, at xviii (defining "Service(s)" as both FWS and National Marine Fisheries Service). For the purposes of this comment, the U.S. Fish and Wildlife Service (FWS) will represent the consulting agency.

41 50 C.F.R. §§ 402.12(k)(1), .13, .14(b)(1).

42 ESA HANDBOOK, *supra* note 18, at 3-12 to -13.

43 *Id.* at 3-12. Similarly, a NLAA finding does not require formal consultation. *Id.* at 4-1.

44 50 C.F.R. § 402.14(b); ESA HANDBOOK, *supra* note 18, at 3-12 to -13.

45 50 C.F.R. § 402.14(g)(4); ESA HANDBOOK, *supra* note 18, at 4-1.

assessment and its own information to evaluate the effects of the action on the listed species or critical habitat.[46]

If the FWS concludes that jeopardy or adverse modification is likely to occur, the project is effectively stopped, unless the FWS identifies "reasonable and prudent alternatives" that allow it to avoid a jeopardy finding.[47] If the FWS concludes that no jeopardy or adverse modification is likely to occur but that the project is still likely to adversely affect listed species, then the agency has effectively conceded that the project may violate section 9, the ESA's prohibition against the take of listed species.[48] To prevent unauthorized take of listed species, the FWS then issues an incidental take statement (ITS) for each species that the agency finds the action is "likely to adversely affect."[49]

The ITS authorizes limited take of the listed species while simultaneously imposing strict limitations on the action to ensure protection for the species.[50] An ITS must specify "the amount or extent" of the incidental taking, "reasonable and prudent measures" to minimize impacts, and "terms and conditions" that the action agency must comply with when implementing such measures.[51] Further, the action agency must "monitor the impacts of incidental take" and "report [to the FWS] the progress of the action and its impact on the species" specified in the ITS.[52] If the amount or extent of the incidental taking is exceeded during the action,[53] or if the action is "modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion,"[54] the action agency "must reinitiate consultation immediately."[55]

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46 50 C.F.R. § 402.14(g)(1), (3).

47 16 U.S.C. § 1536(b)(4)(A) (2012); 50 C.F.R. § 402.14(g)(5), (h)(3); Sierra Club v. Babbitt, 65 F.3d 1502, 1505 (9th Cir. 1995).

48 *See* 50 C.F.R. § 402.14(h)–(i).

49 *Id.* § 402.14(i).

50 *See id.*

51 *Id.* § 402.14(i)(1)(iv). In effect, the ITS acts as a "safe harbor provision immunizing persons from [s]ection 9 liability and penalties for takings committed" during otherwise lawful activities. Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife Serv., 273 F.3d 1229, 1239 (9th Cir. 2001).

52 50 C.F.R. § 402.14(i)(3).

53 *Id.* § 402.16(a).

54 *Id.* § 402.16(c).

55 *Id.* § 402.14(i)(4).

Reinitiating consultation renders the original biological opinion and ITS invalid, and the action agency is no longer shielded by that ITS from penalties for takings.[56] With the issuance of the biological opinion and ITS, formal consultation is complete and the agencies have, for the time being, fulfilled their obligations under the ESA.[57]

II
KXL'S CONSULTATION HISTORY

In 2008, TransCanada applied for a Presidential Permit for the Keystone XL Pipeline Project.[58] A Presidential Permit is required for the construction of any facility (in this case, a pipeline) that would cross international borders to enter the United States.[59] The President delegated authority to review applications for a Presidential Permit to the Secretary of State, hence the State Department's role in this project.[60] The President, however, exercises final authority on whether to issue the Presidential Permit and determines whether the application would "serve the national interest."[61] Issuance of a Presidential Permit requires federal agency action; thus, KXL triggered the requirement for section 7 consultation.

The State Department (Department) completed its first Biological Assessment for the proposed KXL in May 2011.[62] The FWS issued its first Biological Opinion in September that same year.[63] Subsequently, the agencies withdrew these documents after TransCanada rerouted the pipeline to avoid Nebraska's ecologically significant and fragile

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56 *See* ESA HANDBOOK, *supra* note 18, at 4-63 to -65.

57 50 C.F.R. § 402.14(*l*).

58 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 2.0-1.

59 Exec. Order No. 13,337, 69 Fed. Reg. 25,299 (Apr. 30, 2004).

60 *Id*. at 25,299.

61 *Id.* at 25,300; *see also* ADAM VANN & PAUL W. PARFOMAK, CONG. RESEARCH SERV., R43261, PRESIDENTIAL PERMITS FOR BORDER CROSSING ENERGY FACILITIES 2 (2013), *available at* http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/20131029CRSreport-PresidentialPermitsforBorderCrossingEnergyFacilities.pdf.

62 *See* 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 1.0-5. Note that the State Department designated the Gulf Coast portion of the Keystone XL project as a "stand-alone project with independent utility" and has already secured the necessary permits for the project, which is now under construction. *Id.*; *see also* U.S. FISH & WILDLIFE SERV., 2013 BIOLOGICAL OPINION, *reprinted in* FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE KEYSTONE XL PROJECT app. H4 at 3 (2014) [hereinafter 2013 BIOLOGICAL OPINION], *available at* http://keystonepipeline-xl.state.gov/finalseis/index.htm.

63 *See* 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 1.0-5.

Sand Hills region.[64] In May 2012, TransCanada reapplied to the Department for a Presidential Permit.[65] The Department initiated section 7 consultation anew and published a second Biological Assessment in September 2012.[66] While the Biological Assessment is "essentially the same" for Montana and South Dakota as the previous assessment, it includes the updated proposed project information for the revised route in Nebraska.[67] The FWS then issued its second (and current) Biological Opinion in May 2013.[68]

III
KXL'S IMPACTS GENERALLY

In the Biological Assessment, the Department acknowledges that KXL's impacts on listed species include increased human interaction; habitat fragmentation, alteration, and loss; reduced breeding success due to noise and vibration; and the creation of barriers to movement.[69]

The most immediate impacts would result from ground disturbance associated with construction activities. Constructing these 875 miles of new pipeline would require a 110-foot-wide construction right-of-way through important wildlife habitat.[70] Further, vehicular activity along the pipeline route would increase.[71] In total, KXL will disturb roughly 16,300 acres.[72] Despite these facts, the Department still concluded that the "[t]otal habitat loss due to pipeline construction would likely be small"[73] and issued only one LAA finding, for the endangered American burying beetle.[74] This LAA finding was based on the significant impacts of ground disturbance.[75]

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64 *Id.* app H2 at 1.0-1.

65 *Id.*; 2013 BIOLOGICAL OPINION, *supra* note 62.

66 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 1.0-2; 2013 BIOLOGICAL OPINION, *supra* note 62.

67 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 1.0-2.

68 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 1.

69 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 2.0-77.

70 *Id.* app. H2 at 2.0-15, -17.

71 *See* 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 50.

72 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 2.0-17; 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 15.

73 DRAFT SUPPLEMENTARY EIS, *supra* note 2, at 4.6-6.

74 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 1.0-6 to -7.

75 *Id.* app. H2 at 2.0-78.

In addition to significant ground disturbance, the construction of electrical distribution lines (i.e., power lines, that are "required throughout the length"[76] of the project to power pump stations) would have significant impacts—particularly, increasing the collision hazard for the listed and candidate bird species along the pipeline's path.[77] The Department acknowledges that these impacts would be "long term or permanent."[78] The 378 miles of new power lines KXL would require are particularly deleterious to the listed and candidate avian species—the interior least tern, piping plover, whooping crane, Sprague's pipit, and greater sage-grouse.[79]

Finally, KXL poses a serious spill risk. Despite the Department and FWS's conclusion that the probability of KXL spilling and harming wildlife is extremely low, the proposed pipeline is expected to spill an average of 1.9 times per year, with roughly 34,000 gallons of tar sands oil being released into the environment annually.[80] The tar sands oil that would move through KXL is "significantly more corrosive to pipeline systems," "more acidic, thick, and sulfuric," and "up to seventy times more viscous" than conventional crude oil.[81] Not only do these characteristics potentially increase the rate of pipeline deterioration and the risk of spills, but they require a "more aggressive" cleanup operation than conventional oil spills.[82] The devastating effects of a tar sands spill to the environment and wildlife were on display after the Enbridge oil spill in Kalamazoo, Michigan, where approximately four thousand animals had to be treated for injuries and countless more died.[83] Any species caught in the path of an oil spill is likely to suffer serious harm or death.

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76 *Id.* app. H2 at 1.0-8.

77 *Id.* app. H2 at 2.0-77.

78 *Id.*

79 *See infra* Part VI.

80 David Malitz, *Keystone XL Spill Risk: A Reanalysis of the Environmental Impact Statement*, NAT. RESOURCE DEF. COUNCIL (Apr. 24, 2013), http://switchboard.nrdc.org/blogs/eshope/keystone_xl_spill_risk_a_reana.html.

81 ANTHONY SWIFT ET AL., TAR SANDS PIPELINES SAFETY RISKS 6 (2011), *available at* http://www.nrdc.org/energy/files/tarsandssafetyrisks.pdf.

82 *Id*. at 7–8.

83 NAT'L TRANSP. SAFETY BD., ACCIDENT REPORT: ENBRIDGE INCORPORATED HAZARDOUS LIQUID PIPELINE RUPTURE AND RELEASE 63 (2010), *available at* http://www.ntsb.gov/doclib/reports/2012/PAR1201.pdf (indicating that the wildlife response center in Marshall, Michigan, cared for approximately 3970 animals); *see generally EPA's Response to the Enbridge Oil Spill*, EPA, http://www.epa.gov/region05/enbridgespill/ (last visited Mar. 12, 2014).

Yet, remarkably, despite such massive impacts and concerns, the Department determined that only the American burying beetle was likely to be adversely affected by KXL. For the black-footed ferret, the interior least tern, the piping plover, the whooping crane, the pallid sturgeon, and the Western prairie fringed orchid, the Department issued NLAA findings.[84] In addition, the Department issued NLAA findings for two candidate species in the project area: the greater sage-grouse and Sprague's pipit.[85]

The Department's NLAA findings for these species depended heavily on an array of conservation measures. Many of these proposed conservation measures would be carried out by the workers responsible for KXL's construction, and a disturbing number of them are delegated to third-party power companies and cooperatives, as the power lines' construction constitutes a significant portion of KXL's potential impacts to listed species.[86] The Department and FWS improperly rely on these conservation measures to prevent adverse effects to listed species.

IV
KXL'S IMPACTS TO LISTED SPECIES[87]

The whooping crane is one of America's most iconic and imperiled species; only about 214 remained in the wild in 2005.[88] The lanky, migratory bird resides only in North America[89] and travels 2,400 miles from Texas to central Canada each year. [90] The power lines for KXL would cut directly through the whooping crane's remaining 170-mile wide migration corridor, and in Nebraska, nearly the entire pipeline route will be constructed within this corridor.[91] The Department acknowledged that these power lines are collision hazards

84 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 1.0-6 to -7.

85 *Id.*

86 *See infra* Part V.

87 For further information regarding impacts to species in the KXL area, see BURD ET AL., *supra* note 9.

88 *Whooping Crane*, NAT'L WILDLIFE FED'N, http://www.nwf.org/Wildlife/Wildlife-Library/Birds/Whooping-Crane.aspx (last visited Mar. 12, 2014). In 1941, only about fifteen existed in the wild. *Id.*

89 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-13.

90 BURD ET AL., *supra* note 9, at 11.

91 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-17.

to migrating cranes, and recent studies have shown bird mortalities from collisions with existing transmission lines.[92] To curb these impacts, the Department recommended bird flight diverters to reduce collision and mortality rates from power lines.[93] Yet, the FWS has admitted that "[m]ore research needs to be conducted on these so-called 'deterrent devices'" to determine if they are effective.[94]

Other conservation measures include monitoring and surveying whooping crane habitat during migration periods, potentially delaying work if cranes were present, and "[a]void[ing] overhead power line construction within 5.0 miles of suitable whooping crane roosting habitat and/or documented high use areas."[95] Further, while TransCanada noted that new power lines should be buried "[t]o the extent practicable," if it is not "economically or technically feasible to bury the line[s]," installing bird flight diverters and marking new lines within one mile of potentially suitable habitat would minimize the risk of collisions.[96] Relying on these measures, the State Department concludes, and the FWS concurs, that building hundreds of miles of power lines directly within this highly imperiled species' migratory path is not likely to adversely affect the species.

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92 *Id.* app. H2 at 3.0-20.

93 *Id.* app. H2 at 3.0-24.

94 Partners in Flight, *A Fine Line for Birds: A Guide to Bird Collisions at Power Lines*, GA. DEPARTMENT OF NAT. RESOURCES (Apr. 2005), http://georgiawildlife.com/sites/default/files/uploads/wildlife/nongame/pdf/finelineforbirds.pdf (follow "A Fine Line for Birds" hyperlink).

95 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-23 to -24; 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 24-26.

96 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-24. Several power providers agree to cumulatively install over a thousand total bird flight diverters across the project power lines. *See* 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 25.

Figure 1.[97] Only an estimated 300 whooping cranes remain in the wild.[98]

Figure 2. Cranes are particularly susceptible to collisions because they are so lanky.[99]

97 The above photos, published by the FWS, are in the public domain. *Whooping Crane*, U.S. FISH & WILDLIFE SERVICE (Apr. 18, 2008), http://digitalmedia.fws.gov/cdm/singleitem/collection/natdiglib/id/4540/rec/35; *Whooping Cranes at Arkansas National Wildlife Refuge*, U.S. FISH & WILDLIFE SERVICE (Apr. 18, 2008), http://digitalmedia.fws.gov/cdm/singleitem/collection/natdiglib/id/4540/rec/35.

98 BURD ET AL., *supra* note 9.

99 *Id.*

The construction of KXL would also significantly impact the other listed avian species in the project area. The threatened interior least tern—a small, migratory gull—spends more than a third of the year at its breeding site, which include river sand bars along the pipeline route, making the species particularly susceptible to KXL's construction impacts.[100] Beyond the potential impacts from pipeline spills and ground disturbance from construction, the Department noted that electrical power lines would "incrementally increase the collision and predation potential for foraging and nesting interior least terns," and "potentially disturb nesting and brood-rearing birds."[101] Again, the Department acknowledged that "[p]rotection measures *could be* implemented by electrical service providers to minimize or prevent construction disturbance, collision risk, and predation risk to foraging interior least terns."[102] Such conservation measures may include "[m]arking of new power lines with bird flight diverters."[103]

100 *See* 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-5 to -7.

101 *Id.* app. H2 at 3.0-10.

102 *Id.* (emphasis added).

103 *Id.* app. H2 at 3.0-12; *see* 2013 BIOLOGICAL OPINION, *supra* note 62, app. H3 at 24 (requiring Nebraska Public Power District to install "spiral bird flight diverters" on shield wire of power lines).

Figure 3.[104] Besides pipeline construction, in the Midwest, dams, reservoirs, and river channelization and irrigation have already displaced much of the bird's sandbar nesting habitat.[105]

Power lines for KXL threaten another small, sand-nesting bird, the endangered piping plover.[106] The power lines "would add to the incremental collision mortality of migrant piping plovers, especially where these power lines are located near migration staging, nesting, or foraging habitats."[107] But once again, the Department relied on the assurance that the power providers have agreed to install bird flight diverters across the power line routes to reach its conclusion that this endangered species would not be adversely affected by the project.[108]

The Department also noted that the power lines "would incrementally increase habitat alteration and predation hazards" for the two avian candidate species that rely on habitat along KXL's

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104 The above photo, published by the FWS, is in the public domain. *Least Tern*, U.S. FISH & WILDLIFE SERVICE (Aug. 26, 2010), http://digitalmedia.fws.gov/cdm/singleitem/collection/natdiglib/id/10353/rec/1.

105 *Interior Least Tern*, TEXAS PARKS & WILDLIFE DEP'T, http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_bk_w7000_0013_interior_least_tern.pdf (last visited Mar. 19, 2013).

106 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-67.

107 *Id.* app. H2 at 4.8-48.

108 *Id*. app. H2 at 4.8-49; 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 29-30.

proposed route, the greater sage-grouse and Sprague's pipit.[109] The Sprague's pipit—a ground-nesting species that continues to decline in numbers due to habitat loss and fragmentation—is particularly susceptible to collisions because of its high, ringing flights.[110] The greater sage-grouse—a large, ground-dwelling bird known for its intricate mating dance—is particularly susceptible to construction activities, like noise and traffic, that would impact its breeding grounds, called leks.[111] The Department estimated that thirty-five recently active leks within a four-mile radius of the project "could potentially be occupied by sage-grouse" during construction and that construction "could displace breeding birds from leks or disturb nests, resulting in a decrease in their reproduction."[112] Further, increased traffic on roads near the leks "could cause vehicle collision" and impacted birds "may not survive."[113] The Department stated that conservation measures *may* include prohibiting construction within a certain radius of sage-grouse leks during certain times of year or "[e]stablish[ing] a compensatory mitigation fund" to enhance and preserve sagebrush communities for sage-grouse.[114]

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109 *See* 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-79, 3.0-84.

110 *Id*. app. H2 at 3.0-82, 3.0-84 to -85; *Sprague's Pipit*, U.S. FISH & WILDLIFE SERVICE, http://www.fws.gov/mountain-prairie/species/birds/spraguespipit (last updated May 20, 2011).

111 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-75 to -78.

112 *Id.* app. H2 at 3.0-77. While no "recently active leks" are within a half-mile of proposed pump stations, a pipe yard is only one mile away from a lek that has been active for three consecutive seasons. *Id.* app. H2 at 3.0-78.

113 *Id*. app. H2 at 3.0-77.

114 *Id.* app. H2 at 3.0-80; *see also* 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 32.

Figure 4.[115] Greater sage-grouse numbers are in decline and construction noise associated with building KXL and related infrastructure will continue to significantly impact the species.[116]

The black-footed ferret, the only ferret species native to the Americas, has been listed as endangered since 1967.[117] The species is severely imperiled due to loss of its habitat and primary food source, prairie dogs.[118] The Department acknowledged that KXL may disturb prairie dog habitat, which could indirectly impact the ferret.[119] In its analysis of KXL's direct impacts to the black-footed ferret, the Department acknowledged that power line routes may attract raptors, which prey on the ferrets but determined that "[p]rotection measures could . . . be implemented by electrical service providers to minimize

115 The above photo, published by the FWS, is in the public domain. *Greater Sage Grouse*, U.S. FISH & WILDLIFE SERVICE (Dec. 27, 2010), http://digitalmedia.fws.gov/cdm/singleitem/collection/natdiglib/id/11271/rec/4.

116 BURD ET AL., *supra* note 9, at 21.

117 *Black-footed Ferret Fact Sheet*, U.S. FISH & WILDLIFE SERVICE (Dec. 2010), http://www.fws.gov/mountain-prairie/factsheets/Black-Footed-Ferret.pdf.

118 *Id.* (stating that prairie dogs make up more than ninety percent of the ferret's diet).

119 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-3.

raptor perching."[120] Other conservation measures for the black-footed ferret include TransCanada's commitment to not allowing workers to keep domestic pets in construction camps and reporting "dead and/or apparently diseased animals" to the appropriate state and federal agencies.[121]

Figure 5.[122] The black-footed ferret is the only ferret species native to the Americas but is severely imperiled due to habitat loss.[123]

The western prairie fringed orchid, a rare and threatened orchid that lives in tallgrass prairies and meadows along the pipeline route, is particularly susceptible to habitat loss and degradation, especially conversion of native prairies to cropland.[124] The Department found that the orchid resides in Nebraska and Kansas along the project route but that no orchid populations are known to exist in South Dakota.[125] The Department admitted, however, "this may be due to the lack of

120 *Id.* app. H2 at 3.0-4.

121 *Id.* app. H2 at 3.0-4 to -5; 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 23.

122 The above photo, published by the FWS, is in the public domain. *Black-Footed Ferret*, U.S. FISH & WILDLIFE SERVICE (Dec. 13, 2013), http://digitalmedia.fws.gov/cdm/singleitem/collection/natdiglib/id/15051/rec/2.

123 *Black-Footed Ferret*, WORLD WILDLIFE FUND, https://worldwildlife.org/species/black-footed-ferret (last visited Mar. 19, 2013).

124 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-70.

125 *Id.*

surveys in some areas"[126] and that the orchid "is likely to occur in South Dakota given the availability of suitable habitat."[127] In those locations, "[c]onstruction of the proposed pipeline could potentially disturb [the orchid] communities,"[128] and the use of herbicides and river channelization, for example, may threaten the orchid's long-term survival.[129] Regardless, the Department issued NLAA findings for the orchid, relying on conservation measures—such as surveys during blooming periods, carefully routing the pipeline, and reducing the construction right-of-way around orchid habitat—and TransCanada's providing compensation for impacts to the orchid and its habitat during construction and operation.[130]

IV
THE FWS'S CONCURRENCE WITH THE DEPARTMENT'S FINDINGS

KXL is a massive project, and its construction, associated infrastructure, and spill potential will plainly have impacts on the listed and candidate species. Despite the significance of these impacts, however, the Department and FWS concluded in their respective ESA consultation documents that the project is "not likely to adversely affect" any of the listed species besides the American burying beetle.[131] In its concurrence with the Department's NLAA findings, the FWS relies heavily on proposed conservation measures to minimize the effects on the listed species:

> All of [the] conservation measures will be implemented by the applicant [TransCanada] or power providers where specified, and serve to avoid, minimize, or compensate for Project effects on the species under review thereby supporting concurrence by the [FWS] of a NLAA for all of the following species except the [American burying beetle] and candidate species.[132]

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126 *Id.*

127 *Id.* app. H2 at 3.0-71.

128 *Id.* app. H2 at 3.0-72.

129 *Id.* app. H2 at 3.0-71.

130 *Id.* app. H2 at 3.0-73 to -74.

131 *Id.* app. H2 at 1.0-6 to -7; *see* 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 9–10. The Service issued an ITS for the American burying beetle. 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 73–78.

132 *See* 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 22.

The FWS's reliance on TransCanada, its contractors, and power providers to implement the proposed conservation measures is improper under the ESA. First, these measures are unlikely to prevent *all* take of *all* listed species that the agencies said KXL was "not likely to adversely affect." Second, by the FWS concurring with the Department's NLAA findings, the measures remain mere assurances, and they are not actually built into the project. To remedy this, the FWS should revise its NLAA findings to LAA findings for the listed species and then properly incorporate the conservation measures into enforceable and binding requirements in incidental take statements.

V
INEFFECTIVE, INADEQUATE, AND UNENFORCEABLE CONSERVATION MEASURES

First and foremost, the conservation measures are unlikely to prevent all take, even if they were all diligently implemented. For example, the use of bird flight diverters on power lines—one of the primary conservation measures discussed in the Biological Assessment and Biological Opinion to prevent take of interior least terns, whooping cranes, and piping plovers[133]—is anything but foolproof. Their efficacy is "highly variable,"[134] and there are a "surprisingly small number of well-designed, peer-reviewed studies" to support the notion that diverters actually "reduce[] the overall number of bird casualties at power lines."[135] Rather, recent studies have shown bird flight diverters merely reduce "avian collisions by 60 percent,"[136] or even as little as 9.6 percent.[137] Implementing these measures over the 378 miles of power lines necessary to power KXL

133 *See* 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-11 to-12 (discussing the conservation measure of "[m]arking of new power lines with bird flight diverters"). Power providers do not specify the brand of BFDs but indicate their intent to use the mechanism throughout the power line routes. *See* 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 23-26, 29-30.

134 MARCUS L. YEE, TESTING THE EFFECTIVENESS OF AN AVIAN FLIGHT DIVERTER FOR REDUCING AVIAN COLLISIONS WITH DISTRIBUTION POWER LINES IN THE SACRAMENTO VALLEY, CALIFORNIA 1 (2008), *available at* http://www.energy.ca.gov/2007publications/CEC-500-2007-122/CEC-500-2007-122.PDF.

135 Rafael Barrientos et al., *Wire Marking Results in Small but Significant Reduction in Avian Mortality at Power Lines: A BACI Designed Study*, PLOS ONE, Mar. 2012, at 2, *available at* http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3291557/pdf/pone.0032569.pdf.

136 YEE, *supra* note 134, at 2.

137 Barrientos et al., *supra* note 135, at 5.

is unlikely to ensure that not one single whooping crane, piping plover, and interior least tern collision will occur, resulting in unauthorized take. Thus, the FWS's concurrence with the Department's NLAA findings is flawed regarding the listed avian species along KXL's path.

Other conservation measures include surveys and monitoring by TransCanada and other power providers. These, too, are unlikely to prevent all take. For instance, regarding the western prairie fringed orchid, the Department submitted that the project "could potentially disturb" the species when vegetation is cleared for construction, and revegetation may introduce invasive species that could "potentially contribut[e] to the decline" of the orchid.[138] To mitigate this harm, the FWS relied on TransCanada and power providers' staffs to "restore and monitor" the impacts to the orchid's habitat and "complete field surveys . . . during the appropriate bloom periods."[139] There is no indication, however, that these personnel are experts capable of identifying the orchid, its blooming periods, or suitable habitat. This reliance on construction staff to survey and monitor species and habitat health is highly unlikely to prevent all take of this elusive orchid.[140] Again, the FWS improperly relied on flawed conservation measures in its concurrence with the Department's NLAA findings.

Moreover, while many of the conservation measures are plainly inadequate in practice, many of them also may be substantively inadequate under the ESA. Conservation measures "may be included as part of a proposed action and relied upon *only* where they involve 'specific and binding plans.'"[141] In order to support a biological opinion's conclusion, these conservation measures must be "reasonably specific, certain to occur, and . . . they must be subject to deadlines or otherwise-enforceable obligations."[142] Specifically,

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138 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-72.

139 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 31.

140 The Service has also delegated authority to monitor and survey the piping plover, greater sage-grouse, and interior least terns and their respective habitat to TransCanada—again, with no indication that TransCanada's personnel are experts in identifying the species and their habitat. *Id.* app. H4 at 24, 29, 32-33, 35.

141 Ctr. for Biological Diversity v. Salazar, 804 F. Supp. 2d 987, 1001 (D. Ariz. 2011) (emphasis added) (quoting Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 524 F.3d 917, 935 (9th Cir. 2007)).

142 *Id.* (quoting Ctr. for Biological Diversity v. Rumsfeld, 198 F. Supp. 2d 1139, 1152 (D. Ariz. 2002)).

"vague and distant-in-time measures,"[143] such as a letter of commitment with "no binding timeline" for implementation of conservation measures, are likely inadequate under the ESA.[144]

A number of KXL's conservation measures are substantively inadequate. Take for instance the letters of commitment from the power providers, where the majority of the conservation measures for the power line construction are found.[145] There, the power providers have "made commitments" to consult with the FWS on potential conservation measures, specifically bird flight diverters, regarding the interior least tern, whooping cranes, piping plovers, and the greater sage-grouse.[146] But the letters do not contain any "binding timeline" as to when the diverters must be installed. Thus, these measures are indefinite and "distant-in-time."[147]

Further, beyond the implementation process, the actual measures themselves are "vague" and undefined. For example, neither the FWS, TransCanada, nor the power providers have specified which or how many diverters they plan to install along the power lines.[148] These vague plans cannot qualify as "reasonably specific" conservation measures. Another example is the lack of survey guidelines or methods for the orchid "habitat suitability surveys" required before construction.[149] Similarly, these measures are not "reasonably specific" or supported by "otherwise-enforceable obligations" on the parties. Thus, altogether, not only are these conservation measures unlikely to be effective in preventing all take, but with nonexistent requirements for implementation, such as timelines or guidelines, these measures are likely substantively inadequate under the ESA as well.

In sum, the Department and the FWS's reliance on the use of conservation measures to prevent *all* take is improper. The possibility

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143 Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt., 698 F.3d 1101, 1119 (9th Cir. 2012).

144 *Id.* at 1120 (suggesting that if the letter of commitment with "no binding timeline" on conservation measures had been properly incorporated into the biological opinion, it was "quite possible" that it would have been "disapproved as inadequate" under ESA sections 7 and 9).

145 *See* 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at app. A (Letters of Section 7 Consultation Commitments from Power Providers).

146 *Id.*

147 *See Ctr. for Biological Diversity*, 698 F.3d at 1119.

148 *See* 2012 BIOLOGICAL ASSESSMENT, *supra* note 1, app. H2 at 3.0-12; *see also* 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 24-25, 30.

149 2013 BIOLOGICAL OPINION, *supra* note 62, app. H4 at 30.

of incidental take for these species has not been accounted for or authorized. Although TransCanada and the power providers could be subject to civil and criminal penalties under the ESA should take occur,[150] the actual protections envisioned by the conservation measures are not legally enforceable under the Biological Assessment and Biological Opinion. If, or perhaps more accurately when, TransCanada and the power providers fail to diligently implement all these measures, the risks will fall on the species, not the project, contrary to the ESA's purpose.[151]

Instead, because KXL's conservation measures are unlikely to prevent *all* take, the FWS should have issued LAA findings for the listed species and subsequently issue ITSs for the listed species. Then, the conservation measures would have been incorporated into those ITSs. By not incorporating the measures into ITSs, TransCanada and the FWS have not complied with the ESA's procedural requirements.

VI
WHY CONSERVATION MEASURES MUST BE INCORPORATED INTO A BIOLOGICAL OPINION

Conservation measures should be binding and nondiscretionary elements of a project.[152] Therefore, they must actually be built into the KXL project. To do so, the FWS could have, and should have, incorporated these conservation measures into ITSs,[153] as "reasonable and prudent measures" that must comply with specific "terms and conditions," thereby ensuring that TransCanada and the power providers implement and adhere to the measures throughout construction.

In *Sierra Club v. Marsh*, the FWS relied upon San Diego County's proposed acquisition and preservation of mitigation lands to ensure that construction of a flood control channel would not jeopardize listed birds in the project area.[154] In its biological opinion, the FWS

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150 16 U.S.C. § 1540(a)–(b) (2012).

151 *See* Sierra Club v. Marsh, 816 F.2d 1376, 1386 (9th Cir. 1987).

152 *See* Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt., 698 F.3d 1101, 1114 (9th Cir. 2012) ("Since conservation *measures* are part of the proposed action, their implementation is required under the terms of consultation.") (quoting ESA HANDBOOK, *supra* note 18, at 4–19).

153 16 U.S.C. § 1536(b)(4)(B)(i)–(iii); 50 C.F.R. 402.14(i) (2013).

154 *Sierra Club v. Marsh*, 816 F.2d at 1379–80.

considered the acquisition and preservation of the mitigation lands as "one of several 'reasonable and prudent alternatives' . . . necessary to minimize the project's effects," which allowed the agency to reach its finding that the project was not likely to cause jeopardy.[155] After the biological opinion was issued, the county failed to obtain the lands, and the Army Corps of Engineers refused to reinitiate consultation.[156] The court ultimately enjoined the project until the Army Corps reinitiated consultation and "insure[d] the acquisition of the mitigation lands."[157] The court considered the acquisition of mitigation lands as "absolutely necessary to insure that the project was not likely to jeopardize" the listed birds.[158] Because this measure was incorporated into the biological opinion as one of the "reasonable and prudent alternatives" required to prevent jeopardy, the "institutionalized caution mandated by section 7 of the ESA" required that the project be halted until that particular measure is met, or alternatively, the project is modified altogether and the consultation process begins again. [159] Thus, the "contemplated protections of [the] listed species" were enforceable.[160]

Similarly, in *Selkirk Conservation Alliance v. Forsgren*, the court enforced a conservation agreement between the FWS and the Forest Service that imposed "dozens of requirements" on the management of forest land with listed species.[161] The agreement was incorporated into the terms and conditions of the ITS for the project.[162] Thus, the company that received the easement from the Forest Service was required to comply with the conservation agreement in order to "avoid liability for the unauthorized taking" of listed species.[163] The agreement had to "be enforced to deliver on its promises of mitigation."[164] The inclusion of the conservation agreement in the terms of the ITS made plain that the actions required by the agreement were non-discretionary and binding.

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155 *Id.* at 1388.

156 *Id.* at 1380–81.

157 *Id.* at 1389.

158 *Id*. at 1388.

159 *Id*. at 1388–89.

160 Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt., 698 F.3d 1101, 1114–15 (9th Cir. 2012) (interpreting *Sierra Club v. Marsh*, 816 F.2d 1376).

161 Selkirk Conservation Alliance v. Forsgren, 336 F.3d 944, 949 (9th Cir. 2003).

162 *Id.* at 953 n.4.

163 *Id.*

164 *Id*. at 965.

Further, the *Selkirk* court clarified the ongoing duty expected of agencies when implementing proposed conservation agreements: "[F]ederal agencies cannot delegate the protection of the environment to public-private accords. Even given the cooperation of private entities, the agencies must vigilantly and independently enforce environmental laws."[165] Thus, an agency's reliance on third parties to uphold the ESA's mandate to protect listed species is improper.

Most recently, in *Center for Biological Diversity v. U.S. Bureau of Land Management*, the Ninth Circuit stressed the importance of making conservation measures enforceable in a biological opinion.[166] The court relied heavily on both *Marsh* and *Selkirk* in overturning a biological opinion that improperly relied on unenforceable conservation measures to reach a no jeopardy finding:

> We now hold what was implicit in *Marsh* and *Selkirk* and is dictated by the [ESA's] statutory scheme: a conservation agreement entered into by the action agency to mitigate the impact of a contemplated action on listed species must be enforceable *under the ESA* to factor into the FWS's 'biological opinion' . . . .[167]

In *Center for Biological Diversity*, the FWS improperly categorized the conservation measures as "cumulative effects" and accounted for them in their biological opinion.[168] The court clarified, however, that cumulative effects are "essentially background considerations" relevant to the biological opinion, but nonetheless "beyond the action agency's power to effectuate."[169] Thus, the categorization as "cumulative effects" was improper for conservation measures; cumulative effects are instead "'part of the proposed action . . . [and] required under the terms of consultation.'"[170] The FWS could only rely on the measures if they were "incorporated as part of the proposed project."[171]

The court emphasized that the conservation measures at issue should have certainly been considered as part of the project, as they

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165 *Id.* at 955.

166 *See* Ctr. for Biological Diversity v. U.S. Bureau of and Mgmt., 698 F.3d 1101, 1113–19 (9th Cir. 2012).

167 *Id.* at 1117 (quoting 50 C.F.R. § 402.14(g)(4) (2013)).

168 *Id.* at 1113.

169 *Id.* at 1113–14.

170 *Id.* at 1114 (quoting ESA HANDBOOK, *supra* note 18, at 4–19).

171 *Id.* at 1117.

were "unequivocally interrelated" with and dependent on the project construction for a couple reasons.[172] The first reason for this is that the conservation measures would not have been implemented unless the project began.[173] Second, the measures were obviously intended to offset "'adverse impacts to listed species and critical habitat,'"[174] especially considering the agency's reliance on those measures in reaching their "no jeopardy" conclusion in the biological opinion.[175] Therefore, the measures were an "integral part" of the project, not simply cumulative effects, and should have been included as part of the proposed project.[176] When "conservation agreements are part of the project design, the ESA's sequential, interlocking procedural provisions ensure recourse" should the parties fail to enforce that agreement.[177]

In sum, *Marsh*, *Selkirk*, and *Center for Biological Diversity* illustrate the importance of making conservation measures binding and nondiscretionary elements of a project in ESA consultation. In *Marsh*, the conservation agreements were part of the project design. Therefore, the ESA's procedural provisions ensured recourse—such as invalidating the biological opinion,[178] possible reinitiation of formal consultation,[179] or citizen suits for noncompliance with the mitigation measures[180]—should the county (applicant) fail to carry out the conservation agreements.[181] As illustrated in *Selkirk*, these same ESA procedural protections materialize when the conservation measures are properly incorporated into an ITS, rather than "delegated" to third parties (like power providers) for enforcement and implementation.[182] And, as evident in *Center for Biological Diversity*, when the FWS relies upon conservation measures that are clearly intended to offset the adverse impacts to listed species in its biological opinion, those measures must be "part of the proposed

172 *Id.* at 1118.

173 *Id.*

174 *Id*. (quoting draft Memorandum of Agreement).

175 *Id.*

176 *Id.* at 1113 (quoting ESA HANDBOOK, *supra* note 18, at 4-19); *see also id.* at 1119.

177 *Id.* at 1115.

178 ESA HANDBOOK, *supra* note 18, at 4-63 to -65.

179 50 C.F.R. § 402.16 (2013).

180 16 U.S.C. § 1540(g)(1)(A) (2012).

181 *See* Sierra Club v. Marsh, 816 F.2d. 1376, 1384 (9th Cir. 1987).

182 Selkirk Conservation Alliance v. Forsgren, 336 F.3d 944, 955 (9th Cir. 2003).

action"—that is, actually incorporated into the project design—in order to be enforceable.[183]

VII
KXL'S CONSERVATION MEASURES SHOULD BE INCORPORATED INTO AN ITS

The conservation measures relied upon by the State Department and the FWS, such as bird flight diverters and surveying, are unlikely to prevent all take of all listed species along KXL's path. Thus, the Department's finding and the FWS's concurrence, that KXL was "not likely to adversely affect" any listed species beside the American burying beetle, were improper. Instead, the Department and the FWS should have acknowledged that the project is "likely to adversely affect" the listed species and the FWS could have subsequently issued ITSs for these imperiled species.

Within the ITSs, the FWS could then incorporate the conservation measures as "reasonable and prudent measures" that minimize take and set the "terms and conditions" the action agency must comply with to implement the measures.[184] By including these measures in the terms of ITSs, they would become binding and *nondiscretionary* elements of the project that will "be enforced to deliver on [the applicants'] promises of mitigation."[185] In effect, the applicants would be required to "undertake the [conservation] actions to minimize incidental take."[186]

In addition, the ITS would also impose upon the applicant a "continuing duty to . . . report the progress of the action and its impact on the species."[187] This would ensure "adequate action agency oversight" of the amount of incidental takings, further requiring

183 ESA HANDBOOK, *supra* note 18, at xii; *see also* Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt., 698 F.3d 944, 1115 (9th Cir. 2012).

184 50 C.F.R. § 402.14(i)(1); ESA HANDBOOK, *supra* note 18, at 4-48 ("These terms and conditions implement reasonable and prudent measures designed to minimize the impact of incidental take on the species as described in the incidental take statement and are binding on the action agency.").

185 *Selkirk Conservation Alliance*, 336 F.3d at 965; *see* 16 U.S.C. § 1536(o)(2); Or. Natural Desert Ass'n v. Tidwell, 716 F. Supp. 2d 982, 1003 (D. Or. 2010) (stating that the "ITS contain[s] binding obligations on permittees requiring compliance with the conservation measures" proposed).

186 ESA HANDBOOK, *supra* note 18, at 2-12.

187 50 C.F.R. § 402.14(i)(3); ESA HANDBOOK, *supra* note 18, at 4-49.

TransCanada and the power providers to strictly adhere to the conservation measures during construction.

Note, too, that although these ITSs would shield TransCanada and other power providers from criminal and civil liability if take(s) does occur, it would also effectively limit the amount of take(s) and allow the FWS to "immediately reinitiate consultation" should the amount be exceeded.[188] This would give the FWS control over ensuring that the measures are implemented and that they effectively mitigate the amount of take. Changes or flaws in those measures would trigger reinitiation in order for the FWS to "reexamine" the project to ensure that listed species will not be jeopardized and critical habitat will not be degraded.[189] In that case, the ITS would "no longer insulate[]" TransCanada and the power providers from ESA's civil and criminal penalties until the FWS reissues findings.[190] In effect, this ensures that any risks arising from a failure to implement the conservation measures will then be "borne by the project, not by the endangered species."[191] Further, TransCanada's interest in avoiding civil and criminal penalties could help to eliminate the vague and indefinite measures that are currently in the Biological Opinion. Instead, TransCanada would have a serious incentive to develop more precise and strict conservation procedures to avoid exceeding the allowed levels of incidental take.

Ultimately, incorporating the conservation measures into ITSs makes the measures binding on TransCanada and the power providers, ensuring that the project cannot begin or continue unless those measures are strictly adhered to.[192] The FWS improperly relied upon weak conservation measures in its concurrence with the Department's NLAA findings for the listed species and failed to acknowledge the possibility of take with LAA findings. By simply concurring with the Department's findings and measures, the FWS is

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188 50 C.F.R. §§ 402.14(i)(1), (4), .16(a); Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt., 698 F.3d 1101, 1108 (9th Cir. 2012) (quoting Or. Natural Res. Council v. Allen, 476 F.3d 1031, 1034-35 (9th Cir. 2007)).

189 50 C.F.R. § 402.16(b)–(c); *Ctr. for Biological Diversity*, 698 F.3d at 1115; *see also* Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife Serv., 273 F.3d 1229, 1249 (9th Cir. 2001) ("Incidental Take Statements set forth a 'trigger' that, when reached, results in an unacceptable level of incidental take, invalidating the safe harbor provision, and requiring the parties to re-initiate consultation.").

190 *Ctr. for Biological Diversity*, 698 F.3d at 1115; *see* ESA HANDBOOK, *supra* note 18, at 4-64 to -65.

191 Sierra Club v. Marsh, 816 F.2d 1376, 1386 (9th Cir. 1987).

192 *See Or. Natural Desert Ass'n*, 716 F. Supp. 2d at 1005.

seemingly attempting to circumvent the "interlocking procedural provisions" of the ESA that "ensure the protection of listed species."[193]

CONCLUSION

In sum, because the FWS relied upon unenforceable conservation measures in its concurrence with the Department's NLAA findings for the listed species in the KXL area, the Department and the FWS failed to meet their ESA obligations. Not until the FWS reissues LAA findings for the listed species and incorporates the conservation measures into an ITS as binding, nondiscretionary "part[s] of the proposed action," as they are intended to be, will the Department and the FWS have fulfilled their obligations under the ESA.[194] Otherwise, if left to the discretion of the action agency and third parties, the conservation measures may never materialize and unauthorized take may ensue.

193 *Ctr. for Biological Diversity*, 698 F.3d at 1115.

194 ESA HANDBOOK, *supra* note 18, at xii.