Appendix C- Dakota Access Pipeline, Endangered Species Act Section 7 Consultation

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mountain-Prairie Region

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June 23, 2016

MEMORANDUM

TO: Scott Larson, SD Field Supervisor, Ecological Services, Pierre Field Office

FROM: Harris Hoistad, Project Leader, Sand Lake NWR Complex

SUBJECT: Dakota Access Pipeline intra-Service Section 7 Consultation for impacts to National Wildlife Refuge interest properties with conservation easements

Dakota Access, LLC (Dakota Access), is proposing to construct the Dakota Access Pipeline Project (Project). DAPL-ETCO Operations Management, LLC will operate the Project. The overall proposed Project is a 1,134-mile-long, 12-inch to 30-inch diameter pipeline that will connect the rapidly expanding Bakken and Three Forks production areas in North Dakota to existing crude infrastructure in Illinois. The Project originates in the northwest portion of North Dakota and traverses southeast through South Dakota, Iowa, and Illinois and terminates at the existing Patoka, Illinois hub. The pipeline is proposed to transport approximately 450,000 barrels per day (bpd) initially, with an anticipated capacity up to approximately 570,000 bpd. Once the crude arrives at the existing tank farms in Patoka, shippers will be able to access and distribute their crude to multiple markets, including Midwest and Gulf Coast markets via existing and proposed pipeline infrastructure.

My understanding is the U.S. Army Corps of Engineers (Corps) submitted a request for section 7 consultation under the Endangered Species Act (ESA) to the U.S. Fish and Wildlife Service (USFWS) dated March 28, 2016 for the Project. The Corps provided a Biological Assessment and associated consultation materials (BA) via email on March 29, 2016 which evaluated impacts along the entire route to 19 species listed as either threatened or endangered and one species with designated critical habitat under ESA.

I also understand, section 7 consultation was completed for the entire DAPL Project via two documents. First, the USFWS responded to the Corps BA on May 2, 2016 with an initial letter addressing 18 of 19 listed species that might be found along the route. Second, the USFWS completed a Biological Opinion (BO) for Dakota skippers on May 31, 2016 in order to complete section 7 consultation for the entire DAPL Project.

In order to complete the ESA intra-Service section 7 responsibilities for the National Wildlife Refuge System conservation easement properties for the Project, I would like to tier to the already completed section 7 consultation for the entire project. I recognize the section 7 determinations in that effort included some adverse affects to Dakota skippers, northern long-eared bats and Topeka shiners. However, I propose to step that already completed project wide section 7 analysis and species determinations down to reflect the impacts associated with the National Wildlife Refuge System actions.

For the purpose of this intra-Service section 7 consultation, only species that are listed within the counties crossed by the DAPL Project within North Dakota and South Dakota where easements are crossed will be discussed because all USFWS easement crossings only occur within these states. A total of 8 T&E species are listed as threatened or endangered within the North Dakota and South Dakota Project area that crosses USFWS easements. Table 1 below provides a comprehensive list of listed species, counties where they might occur, and effect determination for the affected species. No critical habitat is crossed by the Project within the affected environment but critical habitat has been designated for two species, piping plovers and Dakota skippers but no USFWS easements overlap with those designated critical habitat along the pipeline route. Based on the habitat requirements for the 8 federally listed T&E species, it has been determined that the DAPL Project would have no effect on any of the listed species within the affected environment or designated critical habitat. Of the 8 listed species, the whooping crane (*Grus americana*) and the piping plover (*Charadrius melodus*) may utilize wetland habitats suitable for wetland easements and the Dakota skipper (*Hesperia dacotae*) could use grassland habitats where grassland easements are typically acquired. Therefore, these three species and their habitat requirements are described after Table 1 and justification for the no effect determinations for these three species are provided.

Table 1
Federally Threatened and Endangered Species within the Dakota Access North Dakota and South Dakota USFWS Easements Project Area

Common Name	Scientific Name	Federal Status	North Dakota	South Dakota	Effect Determination
Mammals					
Gray wolf	*Canis lupus*	E	Mountrail, Williams	Not identified in county lists	No effect
Northern long-eared bat	*Myotis septentrionalis*	T	Mountrail, Williams	Campbell, Edmunds, Faulk, Kingsbury, Lake, McPherson, Miner, Minnehaha, Spink	No effect
Birds					
Least tern	*Sterna antillarum*	E	Mountrail, Williams	Campbell	No effect
Piping plover designated critical habitat	*Charadrius melodus*	T	Mountrail, Williams	Campbell, Kingsbury	No effect
Rufa red knot	*Calidris canutus rufa*	T	Mountrail, Williams	Campbell, Edmunds, Faulk, Kingsbury, McPherson, Miner, Spink	No effect
Whooping crane	*Grus americana*	E	Mountrail, Williams	Campbell, Edmunds, Faulk, Kingsbury, Lake, McPherson, Miner, Minnehaha, Spink	No effect
Invertebrates					

Table 1 Federally Threatened and Endangered Species within the Dakota Access North Dakota and South Dakota USFWS Easements Project Area					
Common Name	**Scientific Name**	**Federal Status**	**North Dakota**	**South Dakota**	**Effect Determination**
Dakota skipper designated critical habitat	*Hesperia dacotae*	T	Mountrail, McKenzie, Dunn	McPherson	No effect
Plants					
Western prairie fringed orchid	*Platanthera praeclara*	T	Suitable habitat not in counties crossed by pipeline	Lake, Miner, Minnehaha	No effect
Abbreviations: E: Endangered T: Threatened Information attained by accessing USFWS T&E websites, IPAC and ES Offices.					

Dakota Skipper

Biology

The Dakota skipper was listed under the ESA on October 23, 2014 (USFWS, 2015b). This species is a small to medium-sized butterfly with a one to 1.3-inch wingspan (Xerces Society, 2015). Like other species of skippers, it has a thick body, recurved antennae and fast powerful flight patterns (USFWS, 2014a). The upper side of the male's wing is tawny-orange to brown color with a prominent mark on the forewing; the lower surface is dusty yellow-orange. The upper side of the female's wing is darker brown with tawny-orange spots and a few white spots on the forewing margin; the lower side is gray-brown with a faint white spot band across the middle (USFWS, 2014a). The Dakota skipper is often confused with the Ottoe skipper (*Hesperia ottoe*), however the Ottoe skipper is larger overall with longer wings (Xerces Society, 2015).

Historically, scientists recorded Dakota skippers from northeast Illinois to Southern Saskatchewan; however, their actual historical range is not known due to extensive destruction of native prairies that preceded biological surveys. The species likely lived throughout the unbroken, vast grasslands of the north-central United States and south-central Canada (USFWS, 2014a). The Dakota skipper is now extirpated in Illinois and Iowa. The last remaining stronghold for the species in the United States appears to be in western Minnesota, northeastern South Dakota, and most of North Dakota (United States Geological Survey [USGS], 1995). It is now scattered throughout this range in small isolated communities where undisturbed native prairie remains. The most significant populations are in areas that straddle the border between tallgrass and mixed-grass prairies (USFWS, 2014a).

Dakota skippers have specific habitat requirements for untilled, remnant high quality prairie habitats that are dominated by native grasses that contain a high diversity of native forbs (USFWS, 2014b). The species live in two types of prairies. Moist bluestems prairies, characterized by smooth camas (*Zygadenus elegans*), wood lily (*Lilium philadephicum*), and harebell (*Campanula rotundifolia*), and upland prairies, characterized by bluestem, needlegrass and purple coneflower (*Echinacea angustifolia*) (USFWS, 2014a). The species depends on a diversity of native plants endemic to tallgrass and mixed-grasses prairies. Adult butterflies feed on nectar from native prairie wildflowers and coneflowers (USGS, 1995). Therefore, when nonnative and woody plant species become dominate, populations decline due to insufficient sources of larval food and nectar for adults (USFWS, 2014b).

The Dakota skipper changes from the larva state to the butterfly state in mid-June. Once the butterflies have mated, females lay eggs on a variety of plants from approximately mid-June through early July. The eggs then hatch in seven to ten days (USGS, 1995). The Dakota skipper butterfly then dies a couple weeks after their flight period begins; only one generation is produced each year (USGS, 1995).

Habitat destruction is the primary threat to Dakota skipper populations, which have declined dramatically due to the widespread conversion of native prairie to farms, ranches and other land uses. Along with conversion of native prairies, grazing by livestock can have devastating effects on skipper populations. If not properly managed, long-term grazing can easily destroy the prairie grasses vital to skipper habitat. Along with the above mentioned threats to native habitats the introduction and development of wind energy farms have become a new threat to Dakota skipper populations (MNDNR, 2015). The USFWS along with state agencies are working with private landowners to conserve native prairie habitats through a variety of management tools including haying, prescribed burns and managed grazing practices (USFWS, 2014a).

Habitat Assessment

Approximately 271.6 miles of the 1,134-mile-long pipeline will be constructed within South Dakota, crossing 13 counties in the eastern half of the state. The Project enters South Dakota in Campbell County approximately 17 miles east of the Missouri River, and continues southeast through McPherson, Edmunds, Faulk, Spink, Beadle, Kingsbury, Miner, Lake, McCook, Minnehaha, Turner, and Lincoln Counties. The Project crosses the Big Sioux River approximately 14 miles south of Sioux Falls, and continues in a southeast direction through Iowa. One pump station is located within South Dakota, approximately seven miles southeast of Redfield in Spink County. In addition to the pipeline, Dakota Access will construct aboveground appurtenances including one pump station (located in Spink County), 31 mainline valves (MLVs) and three pig launcher and receiver (L/R) facilities within South Dakota.
The Project in North Dakota totals approximately 358 miles of pipeline and six tank terminal sites. There are two main underground pipeline components, the Supply Line (148 miles), which connects the six tank terminal sites, and the Mainline (210 miles). The Project begins in Mountrail County and heads west through Williams County then continues in a southeast direction through McKenzie, Dunn, Mercer, Morton and Emmons counties. The diameter of the pipeline increases incrementally at designated tank terminals from 12 inches to 20, 24 and ultimately 30 inches. At the discharge site of the Johnson Corner tank terminal and pump station, the 30-inch diameter Mainline commences and heads into a generally southeast direction. The Mainline portion of the Project within North Dakota is approximately 210 miles long before exiting the state in Emmons County. In North Dakota, the Project traverses two WMDs; Lostwood and Long Lake.

According to the proposed pipeline route, 90 wetland easement parcels will be crossed by the project. The proposed route right of way will intersect with 174 wetland basins on those easement tracts. Throughout the planning and development process, the proponents have been in contact with FWS wetland managers discussing the avoidance of service interests. They have re-routed their proposed project around all grassland easement tracts and have worked diligently to avoid as many wetland easement parcels as possible.

Dakota Access has avoided impacts to all grassland easements crossed by the Project within
North Dakota and South Dakota by adjusting the pipeline alignment and incorporating alternative crossing methods (i.e. boring, HDD) at these locations so that there are no surface impacts. Therefore, I have determined there will be no effect on Dakota skippers within the affected environment because impacts to grassland easements have been avoided. Further, no designated critical habitat for Dakota skippers will be impacted by the DAPL Project.

Piping Plover

Biology

The piping plover was listed to the USFWS Threatened and Endangered Species List on December 11, 1985 (USFWS, 2009). The classification of threatened or endangered status is dependent on location, where Northern Great Plains and the Atlantic Gulf Coast populations are listed as threatened, while the Great Lakes population is listed as endangered. All three populations are considered threatened throughout their wintering range (USFWS, 2009). The piping plover is a robin sized shorebird characterized in the summer by a black neck band and black forehead ring, a sandy colored back, a white underside, thin featherless orange legs, and a robust black and orange beak. During the winter and non-breeding months, both the neck band and forehead ring are difficult to observe and the legs may take on a more yellowed color (USFWS, 2013; USFWS, 2012b).

There are three geographically distinct breeding populations of piping plover found in the Northern Great Plains, the Great Lakes, and the Atlantic Coast (USFWS, 2009). All three populations share a common coastal wintering range which extends from the Carolinas, south to the Yucatan (USFWS, 2009). In 2001 and 2002, critical habitat was designated for the Great Lakes and Northern Great Plains breeding populations, as well as for all wintering areas within the U.S. (USFWS, 2009). The Great Lakes critical habitat spans 201 miles of shoreline within the states that border the Great Lakes. Critical habitat for the Northern Great Plains population was created in 2005, and spans about 183,000 acres and 1,200 miles of river from Montana to Minnesota, south to Nebraska (USFWS, 2009). In 2012, research found about 1,300 pairs of piping plovers present in the Northern Great Plains population (USFWS, 2009). There were about 60 pairs in Montana, 650 pairs in North Dakota (located mainly on the Missouri River), approximately 150 pairs in each South Dakota and Nebraska, two pairs in Minnesota, and less than ten pairs in Colorado, Kansas, and Iowa combined (USFWS, 2009). The piping plover inhabits areas near water, preferring river sandbars and alkali wetlands for nesting in the Great Plains and gravelly shorelines in the Great Lakes region (USFWS, 2013). For wintering, the piping plover resides on large coastal sand or mudflats near a sandy beach (USFWS, 2013).

Breeding season for the piping plover spans from late March through April (Texas Parks and Wildlife Department 2015). The birds make nests on the ground on thinly vegetated sand or gravel beaches and dunes approximately 150 to 300 feet apart (USFWS, 2013; USFWS, 2009). The nests for the Northern Great Plains population are generally located along alkali lakes, rivers, and reservoir shorelines that are gravelly and lack sand dunes (USFWS, 2009). The piping plover has been documented utilizing vegetated nesting sites on occasion, nesting within cottonwood saplings along the Missouri River (USFWS, 2009). Typically, this species nests at the water's edge, but during drought years they have been noted to nest as far as 1,000 feet away from the edge of the water (USFWS, 2009). Each nest contains three to four eggs that are incubated by both sexes and hatch in approximately 30 days. In the event that eggs are destroyed early in the breeding season, oftentimes a second batch of eggs will be laid. Protective behavior is often exhibited by the piping plover, feigning a broken wing to lead a predator away when it comes too close to the nest. Chicks will also make use of natural camouflage and hide in the event that danger presents itself. Both the male and female feed the young a diet consisting of freshwater and marine invertebrates until about four weeks after hatching, at which point the chicks will fledge (National Park Service, 2015; Texas Parks and Wildlife Department, 2015; USFWS, 2013).

The diet of piping plovers consists of worms, fly larvae, beetles, crustaceans, mollusks, and other invertebrates (USFWS, 2013). Birds forage near lakeshore or ocean, plucking prey out of the sand (USFWS, 2013). Studies suggest that food availability is dependent on the specific habitat used by the bird; however, more research is needed to determine the exact diets of these birds (USFWS, 2009).

The piping plover has declined due to habitat loss and degradation. Development of coastal beaches has led to a loss of traditional nesting locations, and the increased presence of people in these environments contributes to piping plover nest abandonment or accidental crushing of eggs and young by vehicular or pedestrian traffic. Pet harassment and an increase in predation from raccoons, gulls, foxes and other opportunistic species that readily adapt to man's development activities are also detrimental to piping plover populations (National Park Service, 2015; USFWS, 2001).

According to the proposed pipeline route, 90 wetland easement parcels will be crossed by the project. The proposed route right of way will intersect with 174 wetland basins on those easement tracts. Throughout the

planning and development process, the proponents have been in contact with FWS wetland managers discussing the avoidance of service interests. They have re-routed their proposed project and have worked diligently to avoid as many wetland easement parcels as possible. All piping plover designated critical habitat on wetland easements is avoided and no wetlands where USFWS have easements crossed by the DAPL Project has a history of use by piping plovers. Therefore, I have determined there will be no effect to piping plovers and its designated critical habitat resulting from the impacts of the DAPL crossing USFWS wetland easements.

Whooping Crane

Biology

The whooping crane was federally-listed as endangered under the ESA on March 11, 1967 (USFWS, 2012a). The crane is a large migratory bird species with a long neck and legs, reaching a height of 51 to 63 inches (Esch, 2012). Whooping cranes have primarily white plumage with black primary wing feathers and legs. The crown, lore, and malar areas consist of bare skin covered with few short black bristly feathers (USFWS, 2015a). This species has a bright red crown and the lore and malar areas are generally dark grayish black with some red. Juveniles are distinct with blotches of cinnamon or brown in their white plumage and visible feathers on their heads, contrary to bare skin observed on adults' heads. The bills of whooping cranes have a gray or olive coloration with a pinkish base. Differentiating between male and female whooping cranes is difficult since they share similar physical characteristics, but males (16 pounds) on average weigh more than females (14 pounds) (Esch, 2012).

There are currently four distinct populations of whooping cranes in the wild, with the only natural population migrating between Wood Buffalo National Park in Alberta, Canada and the Aransas National Wildlife Refuge along the Texas coast. The other three populations consist of the following: 1) an experimental population migrating between Wisconsin and Florida; 2) a reintroduced experimental non-migratory population in central Florida; and (3) a non-migratory population in Louisiana (USFWS, 2012a). The previously mentioned natural population has steadily increased an average of 4.6 percent annually (USFWS, 2012a). Historically, this population wintered solely in the Aransas National Wildlife Refuge, but recent reports have spotted whooping cranes in other suitable Texas coastal areas and even inland Central Texas (Texas Parks and Wildlife Department, 2014). As of the spring of 2011, this population of whooping cranes consisted of 279 individuals, compared to 270 in the fall of 2008 (USFWS, 2012a).

The natural whooping crane population travels a defined corridor between summer and winter. This corridor begins in the Northwest Territories of Canada and passes southeast through the center of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and ends at the Texas coast (USFWS, 2012a). Autumn migrations run from mid-September until mid-November, whereas the spring migration begins in late-March or early April and lasts until early May (USFWS, 2015a). Throughout its journey, whooping cranes inhabit various areas, including croplands and palustrine wetlands reaching less than four hectare in size. During the nesting season in the summer, this species relies on poorly drained potholes and wetlands for nesting areas. In the winter, estuarine marshes, bays, and tidal flats are primary habitat (USFWS, 2012a). In general, whooping cranes prefer open areas near water and vegetation (Esch, 2012).

Reproduction occurs once a year during the summer in late April to mid-May, with chicks hatching about a month after eggs are laid (USFWS, 2015a). Generally, two eggs are laid per nest and parents will take turns incubating the nest. The chicks will be cared for until they are nine months old, feeding on worms and insects provided by the parents. At two or three years of age whooping cranes choose a mate for life, and can sexually reproduce between four and five years old (Esch, 2012). Once mature, this species consumes a variety of foods. In the winter, whooping cranes will eat primarily blue crabs, wolfberry fruits, and clams, occasionally consuming acorns, snails, crayfish, and insects when food is scarce. In the summer, whooping cranes eat insects, frogs, rodents, small birds, minnows, and berries. During migration, this species consumes a combination of foods eaten in the winter and summer, in addition to plant tubers and agricultural grains (USFWS, 2015a).

The whooping crane's population numbers are low primarily due to human population growth. The construction of roads, buildings, power lines, towers, and wind turbines have drained crucial wetlands utilized by this species in its migration corridor. In addition, a decrease in river flows has contributed to habitat degradation of riverine migration habitat (USFWS, 2012a). Furthermore, efforts to introduce birds raised in captivity with hopes of steadily increasing whooping crane numbers in the wild have struggled when it comes time for breeding and raising chicks (USFWS, 2012a).

Habitat Assessment

The North Dakota and South Dakota Project area is within the migratory range of this species (Cornell Lab of Ornithology, 2014). Based on South Dakota Natural Heritage Program (SDNHP) and North Dakota Heritage Inventory (NDNHI) data, only one whooping crane occurrence record is located in Kingsbury County, South Dakota approximately one mile from the Project area (NDNHI and SDNHP, 2014). While the Project area within North Dakota and South Dakota may provide suitable stopover habitat for migrating whooping cranes, this species is highly mobile and would likely avoid construction. Additionally, there is ample suitable stopover habitat surrounding the Project area and throughout the region that would provide habitat for the whooping crane outside the construction footprint that is expected to be more desirable to individuals than the temporarily affected area within the project footprint. Therefore, I have determined no effect on this species within the affected wetland easements to be crossed by the DAPL Project.

I recognize that because I have made no effect determinations for the listed species and designated critical habitats for USFWS easement crossings, I do not need to seek your concurrence. However, I am requesting any comments that you may have for the determinations or my suggestion to tier back to the overarching section 7 consultation already completed and therefore restrict my analysis to the areas of conservation easements crossed by the DAPL.

If you have questions please do not hesitate to call me at 605-885-6320.

REFERNECES

Cornell Lab of Ornithology. 2014. All About Birds. http://www.allaboutbirds.org/guide/search. Accessed November and December 2014 and June 2015.

Esch, J. 2012. Animal Diversity Web: *Grus Americana*. http://animaldiversity.org/accounts/Grus_americana/. Accessed February 2015.

Javier, R. 2007. Animal Diversity Web: Anthus spragueii. http://animaldiversity.ummz.umich.edu/accounts/Anthus_spragueii/. Accessed November 2014.

Minnesota Department of Natural Resources. 2015. Rare Species Guide: Dakota Skipper (*Hesperia dacotae*). http://www.dnr.state.mn.us/rsg/profile.html?action=elementDetail&selectedElement=IILEP65140. Accessed February 2015.

National Audubon Society. 2014. The Online Guide to North American Birds. http://birds.audubon.org/birdid. Accessed November 2014.

National Park Service. 2015. Sleeping Bear Dunes: Nature & Science: Piping Plovers. http://www.nps.gov/slbe/naturescience/pipingplover.htm. Accessed February 2015.

NatureServe. 2014. NatureServe Explorer. http://explorer.natureserve.org/. Accessed December 2014.

North Dakota Heritage Inventory. 2014. North Dakota Parks and Recreation Department. Occurrence data within 2 miles of pipeline route. Received December 2014.

South Dakota Natural Heritage Program. 2014. South Dakota Game, Fish, and Parks, Wildlife Diversity Program. Occurrence data within 2 miles of pipeline route. Received July 2014.

Texas Parks and Wildlife Department. 2015. Wildlife Fact Sheets: Piping Plover (*Charadrius melodus*). https://tpwd.texas.gov/huntwild/wild/species/piplover/. Accessed February 2015.

Texas Parks and Wildlife Department. 2014. Whooping Cranes Beginning Their Fall Journey to Texas. http://tpwd.texas.gov/newsmedia/releases/?req=20141008d. Accessed February 2015.

The Xerces Society for Invertebrate Conservation. 2015. Skippers: Dakota Skipper (*Hesperia dacotae*). http://www.xerces.org/dakota-skipper/. Accessed February 2015.

U.S. Fish and Wildlife Service. 2015a. Environmental Conservation Online System: Species Profile for Whooping Crane (*Grus americana*). http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B003. Accessed February 2015.

U.S. Fish and Wildlife Service. 2015b. Endangered Species: Dakota skipper (*Hesperia dacotae*). http://www.fws.gov/midwest/Endangered/insects/dask/index.html. Accessed February 2015.

U.S. Fish and Wildlife Service. 2014a. U.S. Fish and Wildlife Service Species Assessment and Listing Priority Assignment Form. http://ecos.fws.gov/docs/candidate/assessments/2014/r6/B0GD_V01.pdf. Accessed November 2015.

U.S. Fish and Wildlife Service. 2014b. Dakota Skipper (*Hesperia dacotae*) Fact Sheet. https://www.fws.gov/midwest/endangered/insects/dask/daskFactSheet.html. Accessed February 2015.

U.S. Fish and Wildlife Service. 2014c. Federal Register: Endangered and Threatened Wildlife and Plants; Threatened Species Status for Dakota Skipper and Endangered Species Status for Poweshiek Skipperling, Final rule. http://www.fws.gov/midwest/Endangered/insects/dask/pdf/FRButterflyFinalListing24Oct2014.pdf. Accessed February 2015.

U.S. Fish and Wildlife Service. 2013. South Dakota Field Office: Piping Plover *Charadrius melodus*. http://www.fws.gov/southdakotafieldoffice/PLOVER.HTM. Accessed February 2015.

U.S. Fish and Wildlife Service. 2012a. Whooping Crane (*Grus americana*) 5-Year Review: Summary and Evaluation. http://ecos.fws.gov/docs/five_year_review/doc3977.pdf. Accessed February 2015.

U.S. Fish and Wildlife Service. 2012b. Endangered Species: Piping Plover. http://www.fws.gov/mountain-prairie/species/birds/pipingplover/. Accessed February 2015.

U.S. Fish and Wildlife Service. 2009. Piping Plover (*Charadrius melodus*) 5-Year Review: Summary and Evaluation. http://www.fws.gov/northeast/endangered/pdf/piping_plover_five_year_review_and_summary.pdf. Accessed February 2015.

U.S. Fish and Wildlife Service. 2001. Piping Plover Fact Sheet. http://www.fws.gov/midwest/endangered/pipingplover/pipingpl.html. Accessed February 2015.

U.S. Geological Survey. 2013. Northern Prairie Wildlife Research Center: Dakota Skipper Butterfly (*Hesperia dacotae*). http://www.npwrc.usgs.gov/resource/wildlife/nddanger/species/hespdaco.htm. Accessed February 2015.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

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June 23, 2016

MEMORANDUM

TO: Harris Hoistad, Project Leader, Sand Lake NWR Complex

FROM: Scott Larson, Field Supervisor, Ecological Services South Dakota Field Office

SUBJECT: Dakota Access Pipeline intra-Service Section 7 Consultation for impacts to National Wildlife Refuge interest properties with conservation easements

We have received your request for intra-Service Section 7 consultation for the Dakota Access Pipeline dated June 23, 2016. Dakota Access, LLC is proposing to construct the Dakota Access Pipeline Project (DAPL Project). The overall proposed DAPL Project is a 1,134-mile-long, 12-inch to 30-inch diameter pipeline that will connect the rapidly expanding Bakken and Three Forks production areas in North Dakota to existing crude infrastructure in Illinois.

The U.S. Army Corps of Engineers (Corps) initially contacted the U.S. Fish and Wildlife Service (Service) in 2014 regarding Endangered Species Act (ESA) compliance for the Project. The Service provided a letter dated November 13, 2014 to the Corps regarding an expectation that impacts to listed species along the entire route would need evaluation to be consistent with ESA Section 7 regulations.

Section 7 regulations require the Service to evaluate direct and indirect effects of federal actions and their interrelated or interdependent activities are analyzed to ensure they are not likely to jeopardize the continued existence of federally listed species. Under the ESA, indirect effects of the Federal actions include, "...effects that are caused by or result from the action, are later in time but are reasonably certain to occur..." Interdependent actions are actions that have no independent utility apart from the proposed action and interrelated actions are part of a larger action and depend on the larger action for their justification (50 CFR §402.02). Therefore, when the Service received a Biological Assessment and consultation materials (BA) on the DAPL Project from the Corps on March 28, 2016, which evaluated impacts to listed species along the entire route, we noted the multiple sources of Section 7 federal nexuses for the project. These federal nexuses included Corps crossings of wetlands, streams and rivers as well as Service interest land such as the conservation easements you described in your Memorandum of June 23, 2016 and Wildlife and Sport Fish interest lands along the pipeline route.

The Corps provided a BA via email to the Service on March 29, 2016, which evaluated impacts along the entire route to 19 species listed as either threatened or endangered and one species with designated critical habitat under ESA.

Table 1 describes the listed species identified in the BA along with the associated determinations.

Table 1. Federal listed species and designated critical habitat determinations for the entire DAPL route consolidated from Table ES-1 and Table C-1 of the Corps' BA.

Species/Critical Habitat	Status	Determination
Plants		
Decurrent false aster (*Boltonia decurrens*)	Threatened	No effect
Eastern prairie fringed orchid (*Platanthera leucophaea*)	Threatened	No effect
Prairie bush clover (*Lespedeza leptostachya*)	Threatened	No effect
Western prairie fringed orchid (*Platanthera praeclara*)	Threatened	No effect
Invertebrates		
Dakota skipper (*Hesperia dacotae*)	Threatened	MA, NLAA*
Higgins eye pearly mussel (*Lampsilis higginsii*)	Endangered	No effect
Sheepnose mussel (*Plethobasus cyphyus*)	Endangered	No effect
Spectaclecase mussel (*Cumberlandia monodonta*)	Endangered	No effect
Fish		
Pallid sturgeon (*Scaphirhynchus albus*)	Endangered	MA, NLAA
Topeka shiner (*Notropis topeka*)	Endangered	MA, LAA**
Birds		
Interior least tern (*Sterna antillarum*)	Endangered	MA, NLAA
Piping plover (*Charadrius melodus*)	Threatened	MA, NLAA
Piping plover critical habitat	Designated	MA, NLAA
Rufa red knot (*Calidris canutus rufa*)	Threatened	MA, NLAA
Whooping crane (*Grus americana*)	Endangered	MA, NLAA
Mammals		
Black-footed ferret (*Mustela nigripes*)	Endangered	No effect
Gray bat (*Myotis grisescens*)	Endangered	No effect
Gray wolf (*Canis lupus*)	Endangered	No effect
Indiana bat (*Myotis sodalis*)	Endangered	MA, NLAA
Northern long-eared bat (*Myotis septentrionalis*)	Threatened	MA, NLAA

*MA, NLAA = May affect, but is Not Likely to Adversely Affect
**MA, LAA = May Affect, Likely to Adversely Affect

In response to that request from the Corps for Section 7 consultation, the Service responded on May 2, 2016 to the determinations made in the BA and completed a Biological Opinion (BO) dated May 31, 2016 for impacts to the Dakota skipper from the DAPL Project.

We recognized in our May 2, 2016 response letter to the Corps that the proper determinations for Dakota skipper and northern long-eared bat, when evaluating impacts of the entire DAPL project bat would be May Affect, Likely to Adversely Affect for these two species. However, the adverse affects to northern long-eared bat will not result in prohibited incidental take, and those adverse affects are addressed by a Programmatic Biological Opinion dated January 5, 2016 associated with the 4(d) rule for that species. Additionally, we agreed with the Corp's determination of adverse affects to Topeka shiner in South Dakota. In the BA, the Corps proposes to use an existing Programmatic Biological Opinion for the Issuance of Selected Nationwide Permits Impacting the Topeka Shiner in South Dakota. This Topeka shiner

Biological Opinion was issued by the Service on October 6, 2014, for verifications under Nationwide Permit 12 for stream crossings in South Dakota affecting Topeka shiners. The Service agreed with the Corps proposal to extend coverage to add the Topeka shiner to the existing Programmatic BO for Topeka shiner in South Dakota.

Also, in our May 2, 2016 letter, we concurred with the Corps effect determinations of May affect, but is Not Likely to Adversely Affect for the black-footed ferret, gray bat, gray wolf, Indiana bat, interior least tern, pallid sturgeon, piping plover and it's designated critical habitat, whooping crane and the Topeka shiner in Iowa. Therefore, we believe it is appropriate for you to tier back to the completed Section 7 consultation for the entire DAPL Project. We also support your interest to focus the intra-Service Section 7 on the areas of impacts from the Project to the National Wildlife Refuge System lands because the comprehensive Section 7 consultation has been completed. Further, in your description of the project, there do not appear any new or different impacts to listed species that haven't been previously analyzed in the Section 7 consultation completed with the Corps. We note you have made "no effect" determinations for listed species/critical habitat for the portions of the project that cross National Wildlife Refuge conservation easements. As you know, our concurrence is not necessary for "no effect" determinations but we recommend you keep of copy of the supporting information in your records in case it is needed at a later time.

Thank you for contacting our office and if there are any questions please do not hesitate to contact myself at 605-224-8693 x 224.