Appendix K
Environmental Compliance Coordination

for
DRAFT
ENVIRONMENTAL ASSESSMENT

Dakota Access Pipeline Project
Crossings of Federal Projects and Flowage Easements

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August 2016

United States Department of the Interior

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May 2, 2016

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Subject: Dakota Access Pipeline, Endangered Species Act Section 7 Consultation

Dear Ms. Chieply:

The U.S. Fish and Wildlife Service (Service) has reviewed your letter dated March 28, 2016, transmitting a Biological Assessment (BA) describing the anticipated effects of the proposed construction of the Dakota Access Pipeline (DAPL). Energy Transfer, Inc. (Applicant) proposes a new 12-inch to 30-inch diameter crude oil pipeline that will traverse approximately 1,168 miles, originating in Stanley, North Dakota in Mountrail County in the northwest portion of North Dakota and progressing in a southeasterly direction through South Dakota, Iowa, and Illinois. The terminal point will be at the existing Patoka, Illinois hub. The pipeline is expected to transport up to 570,000 barrels per day (bpd) of crude oil from the Bakken and Three Forks production areas in North Dakota to associated infrastructure in Illinois.

Construction of the new pipeline will require a typical construction right-of-way (ROW) width of 125 feet in uplands, 100 feet in non-forested wetlands, 85 feet in forested areas (wetlands and uplands), and up to 150 feet in agricultural areas. Following construction, a 50-foot wide permanent easement will be retained along the pipeline. Where necessary, the Applicant will utilize additional temporary workspace outside of the construction ROW to facilitate specialized construction procedures, such as horizontal directional drills (HDD); railroad, road, wetland, waterbody, and foreign utility line crossings; tie-ins with existing pipeline facilities; areas with steep side slopes; and pipeline crossovers. The DAPL Project also includes the construction of aboveground pig launchers/receivers, tank terminals, pump stations, and valve sites. Construction is anticipated to commence in May of 2016 and a planned in-service by the fourth quarter of 2016.

The U.S. Army Corps of Engineers (Corps) proposes to issue verifications of coverage under Nationwide Permit (NWP) 12 and section 408 permits/easements that authorize the Applicant to construct the DAPL Project across waters of the U.S., pursuant to Sections 404 of the Clean Water Act (CWA) and Section 10 and 14 of the River and Harbors Act (RHA). The Service has been informally consulting with you on this project under section 7 of the Endangered Species Act (ESA) as amended (16 U.S.C. 1531 *et seq.*), since the summer of 2014. As you are aware, the implementing regulations (50 CFR §402.02) for section 7 consultation require an analysis of all direct and indirect effects of the federal action, including those anticipated from interrelated and interdependent activities, in order to define the "effects of the action." Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Interdependent actions would be useless "but for" the completion of the action that is subject to section 7 consultation. In this case, the DAPL project would be useless if it did not connect through the permit areas.

We previously provided you a letter dated November 13, 2014 stating that pipeline construction in areas outside of the Corps' jurisdiction is interdependent to the Corps' issuance or verification of permits. We advised you that your effect determinations must consider impacts of the entire pipeline on listed species and designated critical habitat. The BA that was submitted on March 29, 2016 did not properly define the action area as the entire pipeline because it relied on a faulty definition of interdependent activities. On page 3-1, the Corps noted that "only those effects of activities to construct pipeline segments in uplands that affect the location and configuration of waterbody crossings are interrelated and interdependent with the proposed Regulatory actions". This is incorrect: the Service consults on proposed actions, not on the potential for an action to deviate from its proposed routing. Figure A-1 of your BA shows the proposed action in full. The Service continues to maintain that the action area for this consultation is the entire pipeline, and the effects to listed species in areas outside of the Corps' jurisdiction are interdependent to the Corps' actions. The pipeline would not be able to deliver oil from North Dakota to Illinois without connecting through your jurisdictional areas shown in Figure A-1. Therefore, the determinations in Table ES-1 of the BA are incomplete.

The Corps included information in Appendix C of the BA to address listed species along the entire DAPL Project. In this response letter, we rely upon the combination of determinations in Table ES-1 and Table C-1 of your BA, as listed in Table 1 below. Furthermore, the Corps provided additional information and conservation measures on April 28 and May 2, 2016, that are proposed to be undertaken as part of this federal action to avoid, minimize, and mitigate impacts to listed species beyond the information provided in the BA. Finally, the Applicant also provided information to the Service in April 2016 to assist with the evaluation of impacts to listed species for the entire project. In total, the BA and additional consultation materials provided by the Applicant and the Corps are sufficient to initiate section 7 consultation on the project pursuant to CFR 402.14(c).

Table 1. Federally 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

From this information, the Service has established the action area under consultation to be the entire DAPL project, encompassing all areas within and outside of Corps jurisdictional areas. In total, the consultation material indicated there are 19 listed species and one area designated as critical habitat that could potentially be impacted by the Corps action and the interrelated and interdependent actions (8 within the areas of Corps jurisdiction and an additional 11 federally-listed species outside of the identified Corps jurisdictional areas).

In addition to the Corps' action the Service has identified additional federal agency actions along the pipeline route. For instance, the Service's National Wildlife Refuge (Refuge) Division is considering authorizations for crossing some private lands in North and South Dakota that have Refuge conservation easements associated with them. There is also a single parcel in Iowa,

purchased for conservation with partial federal funding provided by the Service's Wildlife and Sport Fish Restoration Program, which is managed by the State of Iowa.

In both of these cases, Special Use Permits are under consideration for issuance by these Service Divisions/Programs. The Service has prepared an EA regarding the issuance of Special Use Permits in North Dakota and South Dakota and is evaluating the site in Iowa whether additional authorization is needed. Furthermore, we anticipate there could be other federal agencies along the route, such as the Farm Services Agency who administers the Conservation Reserve Program and the Natural Resources Conservation Service who administers the Wetland and Grassland Reserve Program that have programs associated with private lands that may need to provide additional authorization.

In such cases as this where other potential federal nexuses occur, the Service's practice is to conduct one overarching section 7 consultation for all federal agencies. This avoids duplication of effort and can reduce potential for delays. We believe the consultation materials provided by the Corps and the Applicant are sufficient to allow the Service to evaluate impacts to listed species along the entire pipeline route and therefore allow federal agencies to tier to this consultation to assist in their ESA compliance efforts as needed. Although we believe all the potential effects to listed species have been addressed in the information we have at this time, if the efforts of any other federal agency uncovers new information that may have an effect that is not yet considered in our consultation, additional analysis may be warranted and consultation initiated with the appropriate agency.

The potential impacts, species-specific or critical habitat avoidance and minimization measures, and the rationale for our concurrence or non-concurrence with your determinations for listed species as summarized in Table 1, are discussed in the sections that follow.

Invertebrates

Dakota Skipper

Dakota skippers are small butterflies that are considered prairie obligates of good to high quality native prairie. The species was listed in October 2014 as threatened and critical habitat was designated in October 2015. The pipeline route in North Dakota is proposed to cross some areas where high quality native prairie is present within the Dakota skipper's present distribution. At the Service's request, the Applicant conducted occupancy surveys during the adult flight period (late June through mid-July) to determine whether suitable areas were occupied. Thirteen locations were determined to be occupied by the species all in Dunn County, North Dakota. These areas are distributed along a 20-mile segment of the pipeline. Occupied sites occurred only in North Dakota and were found to contain the appropriate grass and forb species required for the species life cycle. The confirmed presence of the species and the presence of the needed vegetation indicates that either eggs, larvae and/or caterpillars likely occur within the pipeline right of way at various time periods throughout the year.

The consultation materials indicate the Applicant will undertake a number of conservation measures (Section 4.2, Appendix C) while installing the pipeline through these areas. These include:

1. Biological Monitors will be retained to ensure there is no impact to adult individuals of this species.
2. Typical construction workspace will be reduced from 150 feet wide to 125 feet wide in an effort to minimize impacts to native grassland habitat.
3. Fugitive dust abatement measures will be utilized to minimize disturbing adjacent habitats.
4. Restrict the use of insecticides during construction or operation within verified habitats.
5. The Applicant will continue to work with the USFWS on acceptable mitigation/conservation measures relative to this species.

Appendix C of the BA provides a "may affect, not likely to adversely affect" determination for the Dakota skipper. The Service does not concur with that determination. Though these conservation measures are valuable and will reduce many impacts, they will not reduce the degree of impacts to an insignificant level or reduce the likelihood of adverse effects to a point that is discountable. The Service has determined that the DAPL Project and associated conservation measures will result in the destruction and/or degradation of approximately 32 to 63 acres of occupied quality native prairie due to construction activities that are interdependent to the proposed federal action.

In addition to the anticipated destruction and/or degradation of occupied habitat, individuals (eggs, larvae and/or caterpillars) are likely to be exposed to Project-induced stressors that would likely cause adverse effects, possibly even the injury or death of individuals. Thus, it would be inappropriate for the Service to concur with the above-mentioned determination. Because the Service anticipates adverse effects to occur to Dakota skippers, formal consultation is required.

As of the date of this letter, formal consultation is being initiated in accordance with 50 CFR 402.14(a) on the Dakota skipper. We will submit the draft biological opinion to the Corps for review prior to finalization. While we recognize the Applicant's urgency, we will work on completing the formal consultation after we have undertaken the appropriate analysis and coordination with all the parties and stakeholders in accordance with our regulatory provisions, procedures and policy.

Fish

Pallid Sturgeon

Pallid sturgeon prefer benthic environments associated with swift waters of large turbid, free-flowing rivers with braided channels, dynamic flow patterns, periodic flooding of terrestrial habitats, and extensive microhabitat diversity. Pallid sturgeon populations are fragmented by

dams on the Missouri River and are very scarce in the Lake Oahe portion of the Missouri River. Potentially suitable habitat for the pallid sturgeon is only present where the DAPL Project crosses the Missouri River and Lake Oahe in North Dakota and the Big Sioux River in South Dakota.

The Applicant has minimized the potential for pallid sturgeon to be indirectly affected by the HDD installation across the Missouri River and Lake Oahe. Although it is possible for inadvertent release of non-toxic bentonite mud (used for lubricating the drill path) into the waterbody, the Applicant's geotechnical analyses at each of the proposed HDD crossings will be used to design the HDD procedures ensuring the likelihood of drilling mud being released into any waterways is discountable.

The Applicant proposes to withdraw water from the Missouri and Big Sioux Rivers for HDD activities, hydrostatic testing of the HDD segment for the Missouri River, and mainline testing activities. However, potential impacts on the pallid sturgeon or suitable habitat present within the Missouri River would be avoided by implementing the conditions for permitted intake structures outlined in the Corps' Regional Conditions for North Dakota applicable to Nationwide Permit 12 Utility Line Activities (Corps, 2012) and as described in the USFWS Recovery Plan for the Pallid Sturgeon. No water withdrawal from or access to Lake Oahe is required to complete the Lake Oahe crossing.

Maintenance activities will not occur within the Missouri River, Lake Oahe, or the Big Sioux River; therefore, no impacts on pallid sturgeon would occur. The depth of the pipeline below the respective rivers (36 feet at DAPL mile post 94.5 to 95.0, Missouri River mile 1577; DAPL mile post 166 to 167.5, Lake Oahe; and the Big Sioux River) and the design and operation measures that meet or exceed the respective Pipeline and Hazardous Materials Safety Administration (PHMSA) regulations make a release into either waterbody very unlikely to occur.

The Applicant and Corps have indicated the following conservation measures will be implemented.

1. The DAPL Project will cross three waterbodies with potential suitable habitat for pallid sturgeon (Missouri River and Lake Oahe in North Dakota and the Big Sioux River in South Dakota) using a HDD construction method, thus avoiding direct impacts to potential habitat for the pallid sturgeon.
2. The Applicant will implement the HDD Contingency Plan at these crossings to avoid potential indirect impacts.
3. The Applicant would implement the conditions on permitted intake structures outlined in the Corps Regional Conditions for North Dakota applicable to NWP 12 (Utility Line Activities) (Corps, 2012) and as described in the Service's Recovery Plan for the Pallid Sturgeon at the temporary water withdrawal at the Missouri River and Big Sioux River.

Based on the implementation of the above conservation measures, we concur with the determination that the construction of the DAPL project may affect but is not likely to adversely affect the pallid sturgeon.

Topeka Shiner

The Topeka shiner may be present in 12 streams within the Action Area in Iowa (North Raccoon River, Cedar Creek, West Fork Camp Creek, Camp Creek, Lake Creek, Purgatory Creek, West Cedar Creek, East Cedar Creek, Hardin Creek, West Buttrick Creek, a tributary to East Buttrick Creek, and East Buttrick Creek) (Table 4-1; Figure A-6, Appendix A). In Iowa, critical habitat for the Topeka shiner has been designated along stream segments in Lyon, Sac, Calhoun, Webster, and Boone Counties; however, no construction is within designated critical habitat segments or stream segments with the Primary Constituent Elements identified for critical habitat.

Two of the 12 streams, the North Raccoon River and Cedar Creek, would be crossed using horizontal directional drill (HDD) construction methods. The remaining 10 streams segments would be crossed using dry open-cut construction methods and were assessed for the presence of Topeka shiner habitat. No stream segments contained suitable spawning/rearing habitat for the Topeka shiner. With the exception of the East Cedar Creek crossing, the crossing locations appear to be highly channelized with stream characteristics or habitats not suitable for Topeka shiners to occupy. East Cedar Creek (at the location of the DAPL crossing) contains habitat that could support transient individuals in search of suitable habitat. For that reason, additional conservation measures have been identified and will be implemented for this stream segment and are listed below.

East Cedar Creek

The supplemental conservation measures transmitted to the Service by the Corps (email April 28th, 2016) provided additional conservation measures which the Corps will include as 'special conditions' of the CWA 404 permit would avoid any incidental impacts to transient individuals at that location.

The following avoidance measures will be implemented on the East Cedar creek crossing in Iowa per the Corps:

1. A DAPL contractor will install an upstream work area barrier.
2. The entire work area will be seined using a 9.5 mm (0.37 inch) stretched nylon mesh fish seine with a lead line bottom from the upstream work area in a 'down-stream' direction past the location of the downstream barrier location by a qualified biologist. The seine will then be staked in place until the downstream barrier is constructed. The seine will not leave the water and fish will not be handled. This step is intended to flush fish (cause them to freely swim) out of the work area. The seine is then staked in place and serves as

a downstream barrier to the work area to keep aquatic vertebrates from moving upstream into work area.

3. The contractor will then install a downstream work area barrier upstream of blocking net.
4. The entire work area will be seined a minimum of three times by a qualified biologist, using a 9.5 mm (.37 inch) stretched nylon mesh seine with a lead line bottom and any remaining fish will be immediately relocated outside the work area.
5. The dewatering pumps used to temporarily dewater the work area, will have the pumps' intake fitted with smaller mesh screens (9.5mm) or put in a slotted bucket to prevent aquatic life from entering the hose.
6. Once the dewatering has occurred, isolated pools will be dip-netted using non-abrasive 9.5mm netting and any fish immediately relocated out of the work area. This should remove any remaining fish.
7. Any netted fish shall be handled with extreme care and kept in water at all times during the transfer procedures. A healthy environment for the stressed fish will be provided. The transfer of fish will be conducted using shaded or dark large buckets (five gallon minimum to prevent overcrowding) and minimal handling of fish. There will be no overcrowding in the buckets and holding time will be minimized. Large fish will be kept separated from smaller prey-sized fish to avoid predation during containment. The water temperature in the transfer buckets will not exceed the temperature of pool water in the subject stream. The fish will be retained the minimum time possible to ensure that stress is minimized, temperatures do not rise, and dissolved oxygen levels remain suitable. Supplemental oxygen (aeration) will be considered in designing fish handling operations.
8. Any netted fish will be released to a location upstream of the work activity. They will be released into an area that provides equivalent or better habitat than the location from which they were removed. The fish will be released downstream of the crossing barrier only if this placement provides better protection and there is no other practical alternative.

Following construction activities:

9. Downstream work area barrier will be removed.
10. Upstream work area barrier will be removed.
11. Silt netting will be installed for bank stabilization to the maximum extent practicable.

Note: The contractor overseeing the fish removal operation will be a qualified biologist permitted by the Service for the handling of this endangered species.

With the implementation of HDD construction methods at the North Raccoon River and Cedar Creek, the implementation of additional conservation measures/special conditions at East Cedar Creek and the lack of suitable habitat at the other locations, impacts to the Topeka shiner in Iowa would be either be completely avoided or reduced to such a low level that any impact would be insignificant or reduced to a point that is discountable.

Critical habitat for the Topeka shiner has not been designated in any of the South Dakota counties crossed by the DAPL Project. The Topeka shiner is known to occur in nine waterbodies crossed by the DAPL Project in South Dakota (James River, Shue Creek, Pearl Creek, Middle Pearl Creek, Redstone Creek, Rock Creek, West Fork Vermillion River, East Fork Vermillion River, and Big Sioux River). Four waterbodies (James River, Pearl Creek, East Fork Vermillion River, and Big Sioux River) would be crossed using HDD construction methods, thus avoiding direct adverse effects to the Topeka shiner at these locations. Field surveys of the remaining five waterbodies identified that one of these waterbodies, the West Fork Vermillion, would be crossed at the headwaters of the stream where it is an emergent wetland with no perennial flow. Therefore, the West Fork Vermillion River crossing is not suitable habitat for the species. The four remaining streams (Shue Creek, Redstone Creek, Middle Pearl Creek, and Rock Creek) include known occurrences and potential suitable spawning habitat.

The Corps and the Applicant have agreed to implement the conservation measures outlined below at each stream crossing that has been identified as potentially containing suitable habitat for the Topeka shiner in Iowa (measures 1-12) and South Dakota (measure 13) to avoid adverse effects to the Topeka shiner.

1. The preliminary routing analysis included consideration of critical habitats and avoided these locations through alignment selection.
2. In Iowa, two streams, the North Raccoon River and Cedar Creek, will be crossed using HDD construction methods, thus, avoiding impacts to these streams and any potential habitat to the Topeka shiner at these crossing locations.
3. All temporary storage facilities for petroleum products, other fuels, and chemicals shall be located and protected to prevent accidental spills from entering the stream or its tributaries within the DAPL Project area. In the event of an accidental spill, The Applicant will follow established reporting procedures.
4. Temporary stream crossings will not contain fine sediment particles that may enter the stream channel and impair water quality. In addition, temporary stream crossings should be removed during final restoration, and the area of impact will be restored to pre-construction conditions.
5. There will be no side casting of trench spoil material into waterbodies. Temporary stockpiles will be stored above the top-of-bank and properly protected with BMPs (e.g., silt fencing) to avoid and minimize erosion and sedimentation into the stream.
6. Temporary culverts for equipment crossings will be installed in a manner that does not impede the natural stream flow and prevent the formation of fish barriers.
7. Temporary BMPs will be utilized to minimize erosion and sedimentation into the waterbody. Appropriate temporary erosion control measures and/or temporary grass seeding should be in place within one week of land disturbance adjacent to each stream crossing. Additional site-specific BMPs will be implemented at each stream crossing as necessary to prevent sediment loading into the stream.
8. In East Cedar Creek and West Buttrick Creek, turbidity curtains will be utilized during construction to prevent sediment from traveling downstream.

9. In-stream construction will be expedited to the extent practical and typically be limited to 72 hours or less, with a goal to cross all in 24 to 48 hours.
10. All areas denuded of vegetation as a result of the permitted action, including the pipeline ROW adjacent to each stream, shall be reseeded within one month following completion of construction. U.S. Department of Agriculture, NRCS-approved native grasses, in addition to any other native "quick" rooting grasses, will be utilized as the permanent seeding mix in non-agricultural areas.
11. Special attention will be taken to protect any off-channel wetland complexes, such as old oxbow meanders that are present near any of the stream crossings. Appropriate BMPs and construction practices as required under NWP 12 and General Conditions will be followed for construction through each of these areas to protect these habitats. Following construction, the ROW and each waterbody crossing will be restored to pre-construction contours and elevations.
12. The Applicant will inform all contractors of the construction practices and BMPs required to protect these sensitive habitats and complete installation of the pipeline in compliance with permit conditions.
13. In South Dakota, four streams (James River, Pearl Creek, East Fork Vermillion River, and Big Sioux River) would be crossed using HDD construction methods and, thus, would avoid impacts to the Topeka shiner or its potential habitat at these locations. For the other streams in South Dakota that contain potential habitat (Shue Creek, Redstone Creek, Middle Pearl Creek, and Rock Creek) for the Topeka shiner and would be crossed by dry open-trench construction methods, The Applicant would implement the RPMs outlined in the *Programmatic Biological Opinion for the Issuance of Selected Nationwide Permits Impacting the Topeka Shiner in South Dakota*, issued by the South Dakota Ecological Field Services on October 6, 2014.

As described in Table 1, construction of the DAPL project is likely to adversely affect the Topeka shiner in South Dakota. The Corps proposes to use the *Programmatic Biological Opinion for the Issuance of Selected Nationwide Permits Impacting the Topeka Shiner in South Dakota* issued by the Service on October 6, 2014 to issue verifications under Nationwide Permit 12 for the stream crossings in South Dakota affecting Topeka shiners.

We concur that the project is likely to adversely affect Topeka shiners in South Dakota, and that these effects will be covered by the Programmatic Biological Opinion. Although construction of the DAPL Project is likely to adversely affect the Topeka shiner in South Dakota, there will be no adverse effects to the species in Iowa based on the implementation of the above conservation measures.

Birds

Interior Least Tern

The interior least tern nests on sparsely vegetated sandbars and beaches of large rivers. Based on the results of the habitat assessment field surveys, the DAPL Project crosses potential interior least tern habitat at the Missouri River and Lake Oahe crossings in North Dakota within Williams, McKenzie, Morton, and Emmons Counties. The Missouri River and Lake Oahe would be crossed by the Project using a HDD construction method to avoid potential interior least tern habitat.

Potential sources for indirect impacts on interior least terns include the inadvertent release of non-toxic bentonite mud (used for lubricating the drill path) into the waterbody or nesting habitat and noise associated with the drilling equipment. Operation of the HDD equipment will result in a temporary increase in noise in the immediate vicinity of the HDD activities. Although the HDD entry and exit sites are located more than 960 feet from any suitable interior least tern habitat, it is possible that the activities would be audible if interior least terns are nesting in the area. However, Atwood et al. (1977) found that noise associated with human activities (an airfield in the case of the referenced study) did not affect site fidelity or nesting success of least terns. Similarly, Hillman et al. (2015) found that noise from military and civilian overflights did not impact nest success and that restricting human disturbance to greater than 50 meters (164 feet) from colony boundaries mitigated adverse impacts to nesting birds. Noise associated with aircraft overflights at low altitudes in the Hillman et al. (2015) study were a minimum of 67.7 decibels (A-weighted) (dBA), greater than the anticipated sound levels generated by HDD equipment. Noise studies conducted at the proposed HDD entry and exit locations indicate that sound levels would be less than 60 dBA at approximately 600 feet from the equipment.

The Applicant plans to withdrawal water from the Missouri River, which is required for activities associated with the installation of the HDD and the hydrostatic testing of the HDD segment. A temporary waterline would be installed at the Missouri River between the shoreline and the HDD workspace on the flowage easements within the permanent ROW. The temporary waterline would be laid by hand on top of the surface, and no tracked or wheeled equipment would be necessary for installation or removal of the temporary aboveground waterline. No disturbance of the river banks is anticipated. Additionally, installation and removal of the waterline are anticipated to be complete prior to nesting season; therefore, no impacts on the interior least tern are anticipated to occur at the Missouri River. If the water withdrawal activities are not able to be completed prior to nesting season, the Applicant would conduct surveys prior to placement of the waterline to confirm the presence/absence of interior least terns within the pipeline ROW. If interior least terns are nesting within the pipeline ROW, the Applicant would postpone water withdrawal activities and contact the Service and Corps. Work would only resume when the Service has given permission following a survey to ensure interior least terns would no longer be affected. No water withdrawal from or access to Lake Oahe is required to complete the Lake Oahe crossing.

The 30 to 50-foot-wide permanent easement would be routinely maintained, including periodic mowing and removal of woody vegetation. Because suitable interior least tern nesting habitat is on unvegetated flats within the Missouri River and Lake Oahe, routine maintenance activities would not occur within suitable habitat.

Based on the information above, we concur that construction of the DAPL project may affect but is not likely to adversely affect the least tern.

Piping Plover

Piping plovers (*Charadrius melodus*) are shore birds that inhabit areas near water, preferring river sandbars and alkali wetlands in the Great Plains for nesting, foraging, sheltering, brood-rearing, and dispersal. Piping plovers winter along large coastal sand or mudflats near a sandy beaches throughout the southeastern U.S. Critical habitat for the piping plover is designated along the Missouri River system throughout North and South Dakota and certain alkali wetlands in North Dakota.

Field assessments for suitable habitat for the piping plover resulted in the identification of alkali wetlands that are not within the Corps' jurisdiction. A total of three alkali wetlands (two within Williams County and one within Morton County, North Dakota) were identified through habitat evaluations but these wetlands are not designated as piping plover critical habitat.

Potentially suitable habitat may also exist at the Missouri River and at the Lake Oahe crossing, depending on precipitation and seasonal flow variations. These areas are also designated as critical habitat for this species under the ESA. The Corps and the Applicant have agreed to implement the following conservation measures to avoid adverse effects to the piping plover and piping plover critical habitat:

1. Avoidance of impacts to designated critical habitat at the Missouri River and Lake Oahe through the implementation of HDDs to install the proposed pipeline at these locations.
2. The Applicant will implement the HDD Contingency Plan at these crossings to avoid potential indirect impacts.
3. Impacts associated with installation of the temporary waterline along the pipeline ROW at the Missouri River required for activities associated with the installation of the HDD and the hydrostatic testing of the HDD segment will be avoided, as installation and removal of the waterline are anticipated to be complete prior to nesting season.
4. Installation and removal of the temporary water line at the Missouri River are anticipated to be complete prior to nesting season; however, if this does not occur prior to nesting season, the Applicant will conduct preconstruction nest surveys to confirm that no active nests are within the area for the pump or waterline.

5. If piping plovers are nesting within the pipeline ROW, The Applicant will postpone water withdrawal activities at the Missouri River until the piping plovers have left the area. No water access is required to complete the Lake Oahe crossing.
6. For construction within the three identified alkali wetlands that could provide suitable nesting habitat for the piping plover in North Dakota, the Applicant will conduct preconstruction nest surveys to confirm that no active nests are at or adjacent to the area to be disturbed. If nests are observed, the Applicant will skip the area until the species has vacated the site and then resume construction.
7. Following construction, alkali wetland areas would be restored to preconstruction contours and elevations and allowed to re-vegetate naturally. No long-term adverse effects to these habitats are would occur.

Based on the implementation of the above conservation measures, we concur that construction of the DAPL project may affect but is not likely to adversely affect the piping plover or its designated critical habitat.

Rufa Red Knot

The rufa red knot is a large sandpiper noted for its long-distance migration between summer breeding grounds in the Arctic and wintering areas at high latitudes in the Southern Hemisphere. Some rufa red knots wintering in the northwestern Gulf of Mexico migrate through interior North America during both spring and fall and use stopover sites in the Northern Great Plains. During spring and fall migrations, rufa red knots are typically found in marine habitats along the Pacific and Atlantic coasts of North America, generally preferring sandy coastal habitats at or near tidal inlets or the mouths of bays and estuaries. However, some migrating rufa red knots use sandbars and sandy shore and beach habitats along large rivers and reservoirs of the interior of North America. This area contains the Atlantic, Mississippi, and Central Flyways. The species also heavily relies on exposed substrate at wetland edges for stopover habitat, and the suitability of a wetland for rufa red knots depends on water levels and may vary annually. During spring and fall migrations, the rufa red knot has the potential to occur in North Dakota and South Dakota counties that are crossed by the DAPL Project. Migrating rufa red knot would likely only occur at migratory stopover habitat (suitable shoreline and sandy beach habitat along major rivers, streams, waterbodies, and wetlands) for a brief amount of time (24 hours or less).

Rufa red knots do not nest in the Project Area and only occur as an occasional migrant. During spring and fall migrations, the rufa red knot has the potential to occur in North Dakota. The results of the habitat assessment field surveys indicate that potentially suitable stopover habitat (sandbar and beach habitats) for migrating rufa red knots is present at the Lake Oahe crossing. Lake Oahe would be crossed using the HDD construction method, and thus would avoid direct impacts on potentially suitable rufa red knot stopover habitat. While direct impacts to the rufa red knot migratory habitat would be avoided through the HDD construction method at Lake Oahe, indirect impacts could occur due to potential disturbance during construction (i.e., noise or an inadvertent release of non-toxic drilling mud).

During construction, noise associated with the HDD may act as deterrent to rufa red knots potentially migrating through the area. These individuals may have to travel to other suitable stopover habitat in the area (e.g., upstream or downstream of the Proposed Action area). Similarly, if an inadvertent release of non-toxic drilling mud were to occur when rufa red knots were present, it could cause individuals to relocate to nearby habitat.

During operations, the Applicant has committed to routinely maintain its 30 to 50-foot-wide permanent easement, including periodic mowing and removal of woody vegetation. As rufa red knots utilize suitable shoreline and sandy beach habitat along major rivers, streams, waterbodies, and wetlands for stopover habitat, effects from maintenance activities would be negligible and would be similar to those described above during construction activities. If rufa red knots were present in the area during maintenance activities, they would likely relocate to nearby suitable habitat. Similarly, if maintenance activities are ongoing at the time of migration, rufa red knots would likely avoid the disturbance area.

Although it is possible for inadvertent release of non-toxic bentonite mud (used for lubricating the drill path) into the waterbody, the Applicant's geotechnical analyses at each of the proposed HDD crossings will be used to design the HDD procedures greatly reducing the likelihood of drilling mud being released into any waterways and impacting any rufa red knot utilizing the area.

Based on the information above, we concur that the construction of the DAPL project may affect but is not likely to adversely affect the rufa red knot.

Whooping Crane

In North Dakota and South Dakota, whooping cranes are only present during the twice-yearly migration between winter grounds and summer nesting sites. As the whooping crane is a migrant and does not breed in North Dakota or South Dakota, the species cannot be confirmed as present in or absent from the Project area. The results of the habitat assessment field surveys indicate that the Project area may contain suitable stopover habitat (i.e., agricultural fields). It is anticipated that whooping cranes would avoid the Project area during active construction, as they tend to avoid areas with human disturbance. The noise and land disturbance from construction activities during the migration periods would likely cause birds to choose more suitable landing and overnight roosting locations away from construction activities given the abundance of similar habitat throughout the migration corridor in North Dakota and South Dakota and in the general vicinity of the Project.

While there is potential for individuals to land in the Project area during construction, the Applicant has committed to stop work if a whooping crane is observed within the Project Area and would not resume until the bird leaves the area. Additionally, the Applicant would notify the Corps and Service of the observation. The presence of construction activities within potentially

suitable stopover habitat during migration could disturb whooping cranes in the area or cause flying whooping cranes to avoid the area and select other suitable stopover habitat. Due to the abundance of available stopover habitat along the North Dakota and South Dakota migration corridor and in the vicinity of the Project area, impacts would be negligible.

The Applicant has committed to routinely maintain its 30 to 50-foot-wide permanent easement, including periodic mowing and removal of woody vegetation. As whooping cranes utilize open fields and emergent wetlands for stopover habitat, affects from maintenance activities would be minimal and would be similar to those described above during construction activities. If whooping cranes were observed in the area during maintenance activities, maintenance personnel would suspend activities until the cranes leave the area. Similarly, if maintenance activities are ongoing at the time of migration, whooping cranes would likely avoid the disturbance area.

Although it is possible for inadvertent release of non-toxic bentonite mud (used for lubricating the drill path) into waterbodies, the Applicant's geotechnical analyses at each of the proposed HDD crossings will be used to design the HDD procedures greatly reducing the likelihood of drilling mud being released into any waterways.

Based on the information above, we concur that the construction of the DAPL project may affect but is not likely to adversely affect the whooping crane.

Mammals

Indiana Bat and Northern Long-eared Bat

The Indiana bat is known or likely to occur within 10 Iowa counties (Boone, Story, Polk, Jasper, Mahaska, Keokuk, Wapello, Jefferson, Van Buren, and Lee Counties) and all 12 Illinois counties (Hancock, Adams, Schuyler, Brown, Pike, Morgan, Scott, Macoupin, Montgomery, Fayette, Marion and Bond Counties) that are crossed by the DAPL. No known maternity roosts or hibernacula used by Indiana or northern long-eared bats have been previously recorded within the Action Areas in Iowa or Illinois. Critical habitat for either bat species has not been designated in any of the counties that are crossed by the pipeline.

The range of the northern long-eared bat includes all portions of the Action Areas in North Dakota, South Dakota, Iowa, and Illinois. The Service has issued a 4(d) rule using the flexibilities under Section 4(d) of the Endangered Species Act to tailor protections to areas affected by white-nose syndrome during the bat's most sensitive life stages. The implementation of the 4(d) rule for the northern long-eared bat exempts certain activities within the white nose syndrome (WNS) buffer zone (those areas within 150 miles of WNS-positive counties) provided certain conservation measures are implemented. In areas outside of the 150-mile WNS buffer zone, incidental take from lawful activities is exempted. All of North Dakota, all of South Dakota except Lincoln County, and Lyon County in Iowa fall outside of the WNS 150-mile buffer zone. However, the remaining 17 Iowa counties (Sioux, O'Brien, Cherokee, Buena Vista, Sac, Calhoun,

Webster, Boone, Story, Polk, Jasper, Mahaska, Keokuk, Wapello, Jefferson, Van Buren, and Lee Counties), Lincoln County, South Dakota and all of the Illinois counties are included in the WNS buffer zone.

In accordance with the 2015 Indiana Bat Summer Survey Guidance (USFWS Guidance) biologists from Burns & McDonald Engineering Company, Inc. and Copperhead Environmental Consulting, working under USFWS Section 10(a)(1)(A) permits (TE30970B-0, TE98032A-0, and TE070584-11) assessed the wooded habitat being crossed by the DAPL project in order to identify suitable habitat occupied by the Indiana or northern long-eared bat (Indiana and Northern Long-eared Bat Summer 2015 Survey 8, 2015). The assessment included a desktop analysis followed by habitat assessment field surveys conducted in fall and winter 2014 and spring 2015. Evaluations for potential roost trees (live trees and dead or dying trees with loose bark, exfoliating bark, cracks, crevices, hollows, or cavities) were completed for the entire DAPL project area in Iowa and Illinois that was found to contain suitable habitat.

Based on the habitat assessments, acoustic and mist netting surveys were conducted in compliance with the USFWS Guidance during the summer of 2015. Acoustic detectors were deployed in 131 1-kilometer segments along the alignment with 258 detector nights recorded. All calls were analyzed using two programs, BCID 2.7c and Kaleidoscope Pro 3.0. Mist netting was conducted within the 84 1-kilometer segments with positive acoustic detections of Indiana bat and/or Northern long-eared bats. Telemetry surveys were implemented during mist net surveys to identify occupied roost trees for either species. During the mist netting surveys, 161 bats representing 8 species were captured. 14 northern long-eared bats and 32 Indiana bats were captured. A total of 23 (6 males, 17 females) Indiana bats and 11 northern long-eared bats (2 males, 9 females) were tracked with radio telemetry and 23 trees were identified as being occupied by either species. 5 trees occupied by only male bats were located within the right of way for the project or within 100 feet of the right of way. All female bats were tracked outside of the right of way of the project with individual roosts identified or approximate locations triangulated for locations that access attainable by surveyors.

The Applicant has implemented the following conservation measures in order to minimize potential impacts to Indiana and northern long-eared bats.

1. Acoustic and mist-netting surveys have been conducted to identify suitable habitat occupied by both species within the DAPL right of way.
2. The preliminary routing analysis included avoidance and minimization consideration of riparian and forested areas to select an alignment and associated workspace that avoids and minimizes impacts to forested areas. Additional avoidance and minimization was achieved during micro-routing along the alignment.
3. The Applicant has reduced the typical construction workspace corridor within forested areas to 85 feet wide.

We understand through conversations with the Applicant and the Corps that much of the wooded habitat within the construction right of way for the DAPL has already been felled. The Service cannot consult on actions that have already taken place. Therefore, felling of the trees prior to the conclusion of this consultation will not be taken into consideration as part of our analysis, and will not be part of our Section 7 consultation with the Corps. Based on information provided by the Applicant, all occupied northern long-eared bat roosts and suitable habitat within 150 feet of northern long-eared bat maternity trees were removed. All roosts identified as occupied by male Indiana bats (females were tracked outside the alignment) within the alignment have also been removed. According to the Applicant and the Corps, the remaining wooded habitat that contains suitable roosts for the Indiana bat will be removed with the following conservation measures.

1. All wooded habitat where negative mist netting results for Indiana bats indicate suitable habitat within the DAPL right of way is most likely to be used as foraging habitat can be removed in the summer if exit counts are executed by qualified biologists on **ALL** potential roosts prior to immediate removal (as defined by the 2016 Indiana Bat Summer Survey Guidance). If any bats are seen exiting from suitable roosts, trees will be removed after October 1 2016, and before March 31, 2017.
2. All potential roosts within areas with positive net captures for Indiana bats or within 2.5 miles of an occupied roost identified during the 2015 surveys will be removed after October 1, 2016 and before March 31, 2017. These areas are confined to a 50-foot permanent right of way that will be cleared to enable inspection to crossings spanned with HDD.

All female Indiana bats were tracked (using telemetry) and the occupied maternity roosts identified were outside of the workspace for the DAPL right of way. Based on review of spatial data, the ground disturbing impacts that will be implemented during construction of the DAPL will not fragment available Indiana bat and northern long-eared bat habitat and will not diminish its use for breeding, feeding, and sheltering of returning maternity colonies. The remaining wooded habitat to be cleared contains few roosts suitable for Indiana bats. Through the integration of the above conservation measures, indirect take within remaining wooded habitat will be avoided.

Therefore, we concur that issuance of the permits and impacts from ground disturbance and removal of remaining wooded habitat is not likely to adversely affect the Indiana bat.

Although all identified roosts for the northern long-eared bat were previously cleared by the applicant prior to concluding this consultation, the few remaining wooded habitat areas may contain a few suitable roosts for this species. Adverse impacts to Indiana bats will be avoided by implementing the conservation measures above, but take of northern long-eared bats in these remaining wooded areas may occur if smaller snags are cleared that are not suitable for Indiana bats. Any take resulting from clearing in the summer is not prohibited by the final 4(d) rule for the northern long-eared bat (50 CFR §17.40(o) because no clearing will occur within 0.25 miles of a known hibernaculum or within 150 feet of known, occupied maternity roost trees in June or

July. This project is likely to adversely affect the northern long-eared bat, and we cannot concur with your determination. However, there are no effects beyond those previously disclosed in the Service's programmatic biological opinion for the final 4(d) rule dated January 5, 2016. This project is consistent with the description of the proposed action in the programmatic biological opinion, and the 4(d) rule does not prohibit incidental take of the northern long-eared bat that may occur as a result of this project. Therefore, the programmatic biological opinion satisfies the Corps responsibilities under ESA section 7(a)(2) relative to the northern long-eared bat for this project.

Summary

As described above, and with the exception of the Dakota skipper, the Service has concluded that the potential effects of the Project on the pallid sturgeon, interior least tern, piping plover and its designated critical habitat, rufa red knot, whooping crane, and Indiana bat are either insignificant or discountable. We therefore concur with your determinations that the project "may affect, but is not likely to adversely affect" these species. We consider section 7(a)(2) consultation to be completed for these species. The Topeka shiner is likely to be adversely affected by the DAPL project, but adverse effects have been avoided in Iowa, and effects in South Dakota are covered by the Programmatic Biological Opinion dated October 6, 2014. The northern long-eared bat is also likely to be adversely affected by the DAPL project, but this project will not result in prohibited incidental take, and its effects are covered by the Programmatic Biological Opinion dated January 5, 2016. No additional consultation is needed for the Topeka shiner or the northern long-eared bat. No further consultation for any of these species is necessary unless: (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in this consultation; (2) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the consultation; or (3) a new species is listed or critical habitat is designated that may be affected by this project.

The Corps responsibilities under section 7(a)2 of the ESA for Dakota skippers have not been met: the action will adversely affect Dakota skipper. The Corps improperly delineated the action area for section 7 consultation based on an incorrect interpretation of interdependent activities. We do not concur with the "may affect, not likely to adversely affect" determination in Appendix C and believe that take of Dakota skippers is reasonably certain to occur. Therefore, formal consultation is required. The Service's South and North Dakota Field Office will issue a biological opinion within the timeframes provided in the section 7 regulations. As a reminder, section 7(d) of the ESA requires that the Corps not make any irreversible or irretrievable commitment of resources that limits future options for the Dakota skipper. This practice ensures agency actions do not preclude the formulation or implementation of reasonable or prudent alternatives that avoid jeopardizing the continued existence of the Dakota skipper or destroying or modifying its critical habitat. We also note, that until formal consultation for Dakota skipper is complete, it is important to avoid activities that may result in take of Dakota skipper to ensure that ESA section 9 violations do not occur.

The Service appreciates the Corps efforts to ensure the conservation of trust species as part of our joint responsibilities under the ESA. Because the remainder of the section 7 consultation involves only the Dakota skipper, the South and North Dakota Field Office will now be the lead field office for completion of the biological opinion. If further information is needed, please feel free to contact Scott Larson at the number below.

Sincerely,

Kraig McPeek
Project Leader
Illinois and Iowa Field Office
309-757-5800 x 202

Scott Larson
Project Leader
North and South Dakota Field Office
605-224-8693 x 224

cc: CEMVR-OD-P (Lenz)
CEMVS-OD-F (Henke)
CEMVR-OD-PP (Hayes)
CEMVS-OD-F (Mcclendon)
CENWO-OD-RF (Latka)
CENWO-OD-RSD (Breckenridge)
CENWO-OD-RND (Renschler)
CENWO-OC (Grow)
CENWO-OD-TN (Cossette)
CENWO-PD-E (Shelman)
CEMVS-PM-E (Allen)

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Illinois Department of
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Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (Act) (520 ILCS 10/5.5) and the regulations adopted to implement the Act (17 Ill. Adm. Code 1080), authorization is hereby granted to Dakota Access Pipeline, LLC (hereinafter referred to as DAPL) for incidental take of Illinois chorus frog (*Pseudacris illinoensis*) and regal fritillary butterfly (*Speyeria idalia*). The Illinois Department of Natural Resources (hereinafter referred to as the Department) has determined that the taking is incidental to activities associated with the construction of an approximately 3.8-mile long 30-inch crude oil pipeline system through Morgan and Scott Counties, which is part of a larger construction project known as the Dakota Access Pipeline Project.[1]

Procedural History

The Department received a conservation plan prepared by Burns & McDonnell for DAPL on April 27, 2015, as a request for authorization for the incidental take of Illinois chorus frog and regal fritillary butterfly. The Department requested additional information on May 22, and July 14, 2015, to make the conservation plan complete as prescribed by 17 Ill. Adm. Code 1080. That additional information was received by the Department on July 15, 2015. The public notice period will be detailed under #6 of the Compliance section below.

Compliance with the Illinois Endangered Species Protection Act

The Act includes six criteria that must be satisfied for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each are listed below.

1. The taking will not be the purpose of, but will only be incidental to, the carrying out of an otherwise lawful activity:

   The stated and apparent purpose of this proposed action is the construction of an approximately 3.8-mile long 30-inch crude oil pipeline system in Morgan and Scott Counties. The construction corridor will be approximately 125 feet in

[1] The proposed DAPL Project is an approximately 1,168-mile crude oil pipeline system through the states of North Dakota, South Dakota, Iowa, and Illinois, ultimately terminating in Patoka, Illinois. Within Illinois, the project involves the construction of approximately 186 miles of pipeline. More specifically, DAPL's Conservation Plan involves an area totaling approximately 3.8 miles located two miles south of Meredosia entering Morgan County at River Mile 69.6 and extending 2.1 miles southeast into Scott County, just east of the intersection of Smith Lake and Cemetery Roads. The alignment continues southeast approximately 1.7 miles until it crosses Illinois Route 100 at a point approximately 0.75 miles south of the intersection of Illinois Route 100 and Mueller Road.

width, consisting of a 50-foot permanent easement and 75 feet of temporary workspace. In standard conditions, the trench will be excavated to a depth of approximately eight feet to allow for a minimum of three feet of cover over the pipe. Within this portion of the Illinois River floodplain, the landcover is primarily agricultural within a mosaic of forest, grassland, wetland, and development. DAPL anticipates that the taking of Illinois chorus frog or regal fritillary butterfly could occur as a result of direct impact and/or habitat alteration during vegetative clearing, grading, trenching, pipe installation, trench backfilling, the use of construction equipment, and vehicle traffic. The take of Illinois chorus frog and/or regal fritillary butterfly that could result from these activities is not the purpose of DAPL's project, but is incidental to the carrying out of an otherwise lawful activity.

2. The parties to the conservation plan will, to the maximum extent practicable, minimize and mitigate the impact caused by the taking:

   Proposed minimization and mitigation measures were included in DAPL's conservation plan.

   To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by DAPL, based on the life history needs of the Illinois chorus frog or the regal fritillary butterfly. **All required minimization and mitigation measures are presented under the Authorization section below.**

3. The parties to the conservation plan will ensure that adequate funding for the conservation plan will be provided:

   DAPL is a subsidiary to Energy Transfer Partners, L.P., and, as such, has adequate financial backing to support and implement the Conservation Plan and costs will be incorporated into the overall DAPL Project budget.

   It is the Department's opinion that DAPL's stated commitment to funding their proposed minimization and mitigation measures is sufficient to satisfy this criterion.

4. Based on the best available scientific data, the Department has determined that the taking will not reduce the likelihood of survival or recovery of the endangered species or threatened species in the wild within the State of Illinois, the biotic community of which the species are a part, or the habitat essential to the species' existence in Illinois:

   The **Illinois chorus frog** is listed as a threatened species in Illinois because of its limited range and threats to its habitat such as conversion to agricultural uses and development. The species has no formal federal conservation status, but the status of the Illinois chorus frog is currently under review by the U.S. Fish and Wildlife Service.

Illinois chorus frogs are found in areas of sandy soil. The frogs spend most of the year buried in the ground, emerging only to move to ponds where they mate and lay their eggs during February and March. Like other frogs, Illinois chorus frogs go through development as tadpoles and then metamorphose into young frogs by late May to mid-June. The young frogs have been shown to migrate up to 0.9 km (2,953 feet) from breeding ponds to burrowing sites. They are able to move short distances and feed while buried. The fossorial habits of the Illinois chorus frog make surveys of their populations difficult except during the breeding season. The success of breeding varies greatly between years depending on precipitation patterns and the persistence of the breeding ponds.

The Illinois chorus frog is found at scattered locations in central, southwest, and extreme southern portions of Illinois. The range of the species is believed to be similar to historic times, but the abundance of the species within that range has diminished. Illinois chorus frogs also occur in parts of Missouri and Arkansas. The Illinois Natural Heritage Database includes 19 element occurrence records for the Illinois chorus frog that are classified as extant. Those populations are found in Alexander, Cass, Logan, Mason, Menard, Morgan, Scott and Tazewell Counties.

The Department has issued 16 previous authorizations for incidental take of Illinois chorus frogs. Project types included pipelines, electric transmission lines, dredged material placement, road construction, a wind farm, and a water treatment plant. For most projects, the primary threat of take is digging up Illinois chorus frogs that are within the soil at the construction site. Frogs can also be crushed by heavy machinery or trapped and buried in trenches. Measures implemented to minimize or mitigate the take of Illinois chorus frogs in previous projects have included excavation of breeding ponds, limitation of the area affected by construction, use of silt fences to exclude frogs from construction areas during their breeding season movement to ponds, inspection of trenches to detect entrapment of frogs, and avoidance of disturbance to breeding ponds. Some recipients of authorization for incidental take of Illinois chorus frogs have provided financial support for management of the species and/or research to enhance the conservation of the species.

DAPL has delineated **18.5 acres** of habitat suitable for the Illinois chorus frog within and near the proposed pipeline corridor.

The **regal fritillary butterfly** is listed as a threatened species in Illinois because of declining numbers and reduction of its range in the State. The U.S. Fish and Wildlife Service was petitioned to list the butterfly in 2015. A status assessment is currently ongoing to determine if federal listing is warranted. The species probably once occurred wherever prairie habitat was present in Illinois, but has suffered from the ongoing loss of that habitat to development and conversion to

agriculture. Recent surveys have found regal fritillary butterflies in tallgrass prairies, wet meadows and other open habitats, often in sandy areas.

Regal fritillary butterflies depend on the presence of violets (*Viola* spp.) as a food source for their larval life stage and use many plants, including milkweeds (*Asclepias* spp.), native thistles (*Cirsium* spp.), coneflowers (*Echinacea* spp.), blazing stars (*Liatris* spp.), and wild bergamot (*Monarda fistulosa*) as nectar sources as adults. The species is univoltine (has only one generation per year). Eggs are laid in mid- to late summer and, upon hatching, the larvae immediately fall to the ground and enter diapause in the leaf litter. Larvae emerge to feed in the spring, go through a brief pupation in the summer and metamorphose to adults in June or July. This life cycle means that where regal fritillary butterflies occur, some life stage of the species is present throughout the year.

The Illinois Natural Heritage Database includes 19 element occurrence records for regal fritillary butterflies that are classified as extant. Those populations are found at scattered locations in Bureau, Carroll, Cass, Iroquois, Jo Daviess, Kankakee, LaSalle, Lee, Mason, McDonough, Menard, Morgan, Ogle, Scott, Tazewell, and Whiteside counties. Many of these populations are small and isolated, making them vulnerable to population collapse.

The Department has issued 5 previous authorizations for incidental take of regal fritillary butterflies. Project types included wind power projects, a pipeline, road improvements, and capping of a closed landfill. Measures implemented to reduce effects on regal fritillary butterflies included reduction of the project footprint and planting of appropriate larval food plants and adult nectar-source plants.

DAPL has delineated **15.6 acres** of habitat suitable for the regal fritillary butterfly within and near the proposed pipeline corridor. Due to aerial movement, the species could occur throughout the project site during summer.

Based on the life history needs of each of the species, the number of known element occurrence records in the State, an assessment of the potential impact to individuals that make up the element occurrences in the project footprint, the conservation measures outlined herein, and the understanding that vulnerability and recovery information on the species remains limited; it is the conclusion of the Department that the taking anticipated as a result of the project will not reduce the likelihood of survival or recovery of the Illinois chorus frog and regal fritillary butterfly in the wild within the State of Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois.

5. Any measures required under Section 5.5(b)(6) of the Act will be performed:

These measures are listed below under "Authorization." This authorization is, by definition, subject to those terms and conditions and the signature of a

representative of DAPL indicates an acceptance of and commitment to performing those measures.

6. The public has received notice of the application and has had the opportunity to comment before the Department made any decision regarding the application:

   Public notice of DAPL's request for authorization of incidental take was published in the (Taylorville) Breeze Courier (official state newspaper) on August 4, 2015, and in the Jacksonville Journal-Courier on August 4, 11, and 18, 2015. The closing date for public comments was September 17, 2015. No comments were received from the public.

Authorization

It is the determination of the Department that the measures to be implemented by DAPL will adequately minimize and mitigate the anticipated taking of the Illinois chorus frog and regal fritillary butterfly incidental to activities associated with the construction of an approximately 3.8-mile long 30-inch crude oil pipeline system in Morgan and Scott Counties, which is part of a larger pipeline project known as the DAPL Project. The covered area that is the subject of this authorization is described on Page 1. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the Illinois chorus frog or regal fritillary butterfly in the wild within the State of Illinois, the biotic community of which the species are a part, or the habitat essential to the species' existence in Illinois.

All terms and conditions included in the aforementioned conservation plan submitted by DAPL to the Department are incorporated into this agreement by reference and made a part thereof.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5] and the Administrative Rules for the Incidental Taking of Endangered and Threatened Species [Ill. Adm. Code 1080.40(b)], this authorization is issued subject to the following terms and conditions, which may include additions or modifications to the minimization and mitigation measures proposed by the applicant in the conservation plan:

- This authorization is effective upon the signature of the Department and shall remain in effect for a period of **seven (7) years** from the date of the Department signature, unless terminated by written agreement of both parties.

  This authorization may be revoked pursuant to the Act and Ill. Adm. Code 1080.80(b) if the Department finds that DAPL has failed to comply with any of these terms and conditions or has been responsible for the taking of the Illinois chorus frog and/or the regal fritillary butterfly beyond that which is incidental to activities associated with the construction of approximately 3.8 miles of 30-inch crude oil pipeline in Morgan and Scott Counties, which is part of a larger construction project known as the DAPL Project.

- The effective period of this authorization may be altered by mutual written agreement between DAPL and the Department. The Illinois Endangered Species Protection Board shall be notified of any such alteration.

  Any substantive changes, including but not limited to a change in the project footprint or a change in the Illinois endangered or threatened species which could potentially be affected, will require that a new conservation plan be submitted to the Department to initiate the review and public notice process as required by the Act.

- This authorization is non-transferable.

- On-site personnel shall be educated on the sensitive biological resources in the area, the identification of Illinois chorus frog and regal fritillary butterfly, regulations protecting the species, where the species might be found, avoidance areas, travel restrictions for equipment and vehicles, how to report sightings or incidents that may involve take, and the importance of avoiding take of the species. DAPL shall submit a copy of the education materials to the Department.

- The Department reserves the right of entry to inspect potential habitat and species management practices.

- Environmental Inspectors employed by DAPL shall hold the necessary permits for work with non-listed and listed species; these include an IDNR Scientific Collection Permit and an IDNR Endangered Species Permit.

- DAPL shall notify the Department's Endangered Species Program of construction commencement and completion of the pipeline project. The Department shall be informed of any State-listed species sighting and provided location information (photograph and GPS coordinates) within 48 hours of such sighting. The Department shall be notified immediately of the discovery of dead specimens and will provide guidance on preservation and disposition.

- DAPL shall conduct, or cause to be conducted, the following pre-construction or during-construction efforts:
  - Where groundbreaking occurs, all measures of erosion control shall be implemented and monitored for effectiveness. An appropriate native seed mix shall be used to stabilize areas.
  - Soil profile shall be segregated to ensure reestablishment of pre-disturbance profile.
  - In travel ways, matting shall be utilized to reduce compaction in soft or wet areas. When and where appropriate, low ground pressure tires shall be utilized.
  - During breeding season of the Illinois chorus frog (February to June), temporary exclusion fencing shall be installed and inspected. All trenches shall be inspected daily. If frogs are found in any condition, DAPL

representatives shall call the local District Heritage Biologist at 217-653-2236 for retrieval.
- Periodic monitoring for migrating congregations of Illinois chorus frogs within travel corridors and work areas during breeding season shall occur and impact to congregations during migration shall be avoided.
- Periodic monitoring for the regal fritillary butterfly shall occur and impact to any congregations shall be avoided.

- DAPL shall restore all temporary travel areas, work areas, and pipeline right-of-way per the conservation plan. All non-agricultural lands shall be planted in appropriate native species. Adult (prairie forbs, including but not limited to butterfly milkweed, common milkweed, yarrow, pale-purple coneflower, and rattlesnake master) and larval (violets, including but not limited to Johnny jump-up and birdsfoot violet) food sources for the regal fritillary butterfly shall be planted within appropriate areas of the right-of-way. If plantings are unsuccessful, supplementation shall occur. DAPL shall provide vegetation summary memorandums to the Department **for three years following construction completion** with mapping of vegetated areas, species lists, and photographs.

- **Within 60 days of construction completion**, DAPL shall provide the Department with a project status report summarizing the implementation of minimization, mitigation, and restoration measures and evaluating the effectiveness of those measures. If any Illinois chorus frogs and/or regal fritillary butterflies were encountered during the project; this report shall also include a map of where the species were found, a description of any injuries or mortalities, and the disposition of any individuals that were injured or killed.

- DAPL shall conduct, or cause to be conducted, post-construction surveys including:
  - Nighttime audible call surveys no earlier than thirty minutes after sunset shall be performed during Year 3 post-restoration by qualified contractors twice (approximately 15 days apart) within the same breeding season (March to May). Surveys shall be conducted when the temperature is above 0° C and wind speed is below 30 km/hr. Listening posts shall be targeted at no less than 4 known or modeled ponds dispersed along corridor. Illinois chorus frog survey data sheets shall reflect date, location, time, air temperature, humidity, wind speed, moon visibility, precipitation, number of minutes at each listening post (no less than fifteen minutes), other noise, water presence/absence, and a notation of whether the call emanates from within the corridor or outside (note direction). If dry conditions preclude Illinois chorus frog breeding/calling in Year 3, the surveys shall be conducted in Year 4. Mapping of all ephemeral wet areas potentially utilized by Illinois chorus frog along the corridor shall be provided to the Department with notations on depth of water and presence/absence of emergent vegetation and tadpoles.
  - During Year 3 post-restoration or concurrent with frog survey year, one regal fritillary butterfly survey performed by a qualified contractor shall occur between June 30 and July 20 along the length of the pipeline corridor covered

by this authorization noting presence/absence of adults of the species, perpendicular distance of individual from corridor, behavior (basking, flying, or nectaring), if nectaring – note flower species, and including an inventory of all blooming species (of particular note are adult and larval food sources - prairie forbs and violet species).
- **Maps and reports for each of the species shall be submitted within 60 days of survey completion.**

- Mitigation to the maximum extent practicable is required by the Act. Mitigation requirements for this authorization are calculated as follows:
  - suitable habitat for both species overlaps, therefore potential habitat impact totals 18.5 acres separated below into trench line and buffer impact or temporary workspace impact,
  - the applicant's estimate of trench line and buffer impact to suitable habitat acreage of Illinois chorus frog and regal fritillary butterfly (3.9 acres),
  - *multiplied* by the Department's standard mitigation ratio of 5.5:1 equaling **21.45 mitigation acres**, (3.9 x 5.5 = 21.45),
  - *plus* the applicant's estimate of temporary workspace acreage within suitable habitat (14.6 acres), *multiplied* by a ratio of 3.5:1,
  - temporary workspace acreage *multiplied* by an occupancy rate for the Illinois chorus frog of 0.56 applied only to the non-groundbreaking acreage (this number is derived from Bradley Cosentino's "Monitoring plan to detect trends in occupancy of Illinois chorus frogs" prepared for the Illinois Department of Natural Resources, 2014) equaling **28.62 mitigation acres**, (14.6 x 3.5 x 0.56 = 28.62).
  - The *sum* of 21.45 and 28.62 is **50.07 total mitigation acres**.

  DAPL shall choose either to perform habitat creation, restoration, acquisition, protection, or species research to the benefit of the Illinois chorus frog and the regal fritillary butterfly; OR to apply an in-lieu compensatory mitigation payment based on an estimated applicable land value in the affected county of $2,200.00 per acre. **The total conservation benefit value or in-lieu compensatory mitigation due to the Department for this project is $110,154.00.** Mitigation settlement dollars paid to the Department are placed in the Illinois Wildlife Preservation Fund and earmarked for the conservation benefit of the State-listed species potentially impacted. Mitigation payments are non-refundable, including in events of revocation or termination.

  Mitigation valuations are based on the Department's best current understanding of the species life history needs, real estate values, and impact analysis relevant to the site's proposed conceptual design elements available at the time of review.

- DAPL shall submit reports on all surveys within 60 days of survey completion.

- All reports and other documentation required by this authorization shall be submitted to:

  Illinois Department of Natural Resources
  Endangered Species Program
  Incidental Take Authorization Coordinator
  One Natural Resources Way
  Springfield, IL 62702-1271

  (217)557-8243
  DNR.ITAcoordinator@illinois.gov

  The Department's Endangered Species Program shall provide all reports required under this agreement to the Illinois Endangered Species Protection Board and to the Department's Natural Heritage Database.

- The DAPL official identified below is authorized to execute this agreement. Execution by DAPL indicates acceptance of all terms and conditions described by this authorization.

For the Illinois Department of Natural Resources:

Dr. James Herkert, Director
Office of Resource Conservation

2-25-16
Date

For Dakota Access Pipeline, LLC:

Joey Mahmoud
Senior Vice President, Engineering

Joey Mahmoud - SVP
Printed Name and Title

2/1/16
Date

Illinois Historic Preservation Agency

SURVEY REQUEST

1 Old State Capitol Plaza, Springfield, IL 62701-1512 www.illinoishistory.gov

Scott County PLEASE REFER TO: IHPA LOG #017101515
Various cities
Area 13 - Mileposts 903, 11ST192, Bluffs
Section:3-Township:15N-Range:13W
COESTL-RI #-CEMVR-OD-P-2014-1313
New construction, Dakota Access Pipeline - Scott Co.

March 3, 2016

Brant Vollman
Department of the Army, Rock Island District, Corps of Engineers
Clock Tower Building, P.O. Box 2004
Rock Island, IL 61204-2004

Dear Mr. Vollman:

Thank you for requesting comments from our office concerning the possible effects of the referenced project on cultural resources. Our comments are required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties".

Our staff has reviewed the archaeological Phase I reconnaissance report performed for the above referenced project. The Phase I survey and assessment of the archaeological resources appear to be adequate.

Archaeological sites 11ST192 is potentially significant and, consequently, may be eligible for listing on the National Register of Historic Places under criterion "d". If your project will not affect the site(s), then we can make a determination of "no adverse effect" for this project provided that the following conditions are met: 1) a deed covenant is placed on the parcel of property that contains the sites to ensure that no construction/development activity will occur without the consent of the Illinois State Historic Preservation Agency and the federal agency shall be provided with a copy of the executed covenant with evidence of its recordation at the appropriate county office. Please call if you wish a copy of a sample covenant to review.

If your project can not avoid the potentially eligible site(s), then Phase II archaeological investigations to evaluate the significance of these sites will be necessary prior to construction. If the site(s) is/are determined not to be eligible for the National Register after the Phase II work, then no further investigation will be required. If the site(s) is/are determined to have met National Register eligibility criteria after the Phase II work, then you have two (2) options. You may preserve the site location through a Deed Covenant as described above. Alternately, you may request initiation of a Memorandum of Agreement (MOA) which must be signed by IHPA and the Federal Agency. The MOA will include a Data Recovery Plan for archaeological excavation, analysis of the site, a written final report and plans for artifact curation.

A COPY OF THIS LETTER INCLUDING THE IHPA LOG NUMBER SHOULD BE PROVIDED TO THE PROFESSIONAL ARCHAEOLOGICAL CONTRACTOR WHOSE SERVICES ARE OBTAINED TO CONDUCT THE PHASE II INVESTIGATIONS TO ENSURE THAT THEIR REPORT IS CONNECTED WITH YOUR PROJECT PAPERWORK.

If you have any questions, please contact Joe Phillippe at 217/785-1279.

Sincerely,

Rachel Leibowitz, Ph.D.
Deputy State Historic
Preservation Officer

c: Amy Henke, U.S. Army Corps of Engineers, Regulatory Branch

Illinois Historic Preservation Agency

1 Old State Capitol Plaza, Springfield, IL 62701-1512

FAX 217/524-7525

www.illinoishistory.gov

Various Counties PLEASE REFER TO: IHPA LOG #010072815

CLEARANCE LETTER

Nauvoo to Marion
Adams – Sites 11A1793, 1796, 1800
Bond – Sites 11B4, 171, 173, 174, 176, 178, 179, 180
Brown – Sites 11BR39, 413, 506-516, 520-525, 527-531, 533-535, 537, 538, 541, 545-548, 551, 554, 559-565
Fayette – Sites 11FY40, 42, 592, 593, 596, 597, 598, 599, 601, 603, 605, 608-611
Hancock – Sites 11HA124, 777, 977, 979, 981, 984, 987, 989-995
Macoupin – Sites 11MP322, 323, 327-330, 332, 335-340, 342-351, 353, 354, 356, 358-360
Marion – Sites 11MR256, 257, 258, 261
Montgomery – Sites 11MY135, 141, 217-226, 229-240
Morgan – Sites 11MG493-497, 499, 500, 503, 507, 508, 509, 512-519, 521, 523, 525-528, 530, 541
Pike – Site 11PK692
Schuyler – Sites 11SC1198-1204, 1207, 1210, 1212
Scott – Sites 11ST176, 578, 579, 583-596, 600, 601, 602
COERI-CEMVR-OD-P-2014-1313, COESTL, USFWS
New construction, Dakota Access Pipeline

March 3, 2016

Douglas Kullen
Burns & McDonnell
1431 Opus Place, Suite 400
Downers Grove, IL 60515

Dear Mr. Kullen:

The Illinois Historic Preservation Agency is required by the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420, as amended, 17 IAC 4180) to review all state funded, permitted or licensed undertakings for their effect on cultural resources. Pursuant to this, we have received information regarding the referenced project for our comment.

Our staff has reviewed the specifications under the state law and assessed the impact of the project as submitted by your office. We have determined, based on the available information, that no significant historic, architectural or archaeological resources are located within the proposed project area.

According to the information you have provided concerning your proposed project, apparently there is no federal involvement in your project. However, please note that the state law is less restrictive than the federal cultural resource laws concerning archaeology. If your project will use federal loans or grants, need federal agency permits, use federal property, or involve assistance from a federal agency, then your project must be reviewed under the National Historic Preservation Act of 1966, as amended. Please notify us immediately if such is the case.

This clearance remains in effect for two (2) years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the IL Human Skeletal Remains Protection Act (20 ILCS 3440).

Illinois Historic Preservation Agency

1 Old State Capitol Plaza, Springfield, IL 62701-1512 www.illinoishistory.gov

Please retain this letter in your files as evidence of compliance with the Illinois State Agency Historic Resources Preservation Act.

If you have any further questions please contact Joe Phillippe at 217/785-1279 or joe.phillippe@illinois.gov.

Sincerely,

Rachel Leibowitz, Ph.D.
Deputy State Historic
Preservation Officer

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, ROCK ISLAND DISTRICT
PO BOX 2004 CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61204-2004

REPLY TO
ATTENTION OF

March 21, 2016

Operations Division

SUBJECT: Additional information for St. Louis District 408 areas as related to DAPL Pipeline

Dr. Rachel Leibowitz
Illinois Historic Preservation Agency
1 Old State Capital Plaza
Springfield, Illinois 62701-1507

Dear Dr. Leibowitz:

The U.S. Army Corps of Engineers, Rock Island District (RI District) Regulatory Branch is assisting the U.S. Army Corps of Engineers, St. Louis District (St. Louis District) with the Dakota Access Pipeline Project (DAPL) for portions of the alignment in Illinois. The proposed 1,100-mile, 30-inch diameter, crude oil pipeline would extend from Stanley, North Dakota through South Dakota and Iowa to a delivery point at Patoka, Illinois. The purpose of this letter is to provide additional information on the Section 106 consultation and review, consult on the area of potential effects (APE) as related to the 408 process.

Enclosed please find three maps delineating the three area identified as having 408 concerns along the alignment in the St. Louis District portion of the alignment. In addition, I can provide the following information:

Log# 16 101515

Illinois River / West Levee portion (Enclosure1) – this area is also covered by the St. Louis District PCN #12. As part of the 408 review, the pipe stringing area was also surveyed for historic properties. No historic properties were identified in the additional survey area. Please note that because your office had already received the larger "statewide" phase I report, the PCN#12 report was updated to include the pipe stringing area even though it is not officially included in the PCN area (Please note that the revised PCN#12 report will be submitted under a separate cover letter). The access roads are located in agricultural fields and should not receive any additional disturbance beyond the existing disturbance from agricultural practices.

Coon Run Levee (Enclosure 2) – Three sites were identified in this portion of the alignment.

Log# 010072815

- 11ST176 was recommended not eligible. IHPA concurred under state review by letter dated 3/3/2016
- 11ST582 your office requested Phase II or avoidance – It is being crossed by HDD. This plan has been discussed with and approved by the Osage Tribe.
- 11ST599 was recommended as not eligible. Your office requested Phase II or avoid. DAPL plans to avoid with all workspace areas and fence off any adjacent portions for added protection.

The access road in this segment runs along an existing two track road.

Carlyle Lake (Enclosure 3) – a large portion of this project area is also covered by the St. Louis District PCN #78 (IHPA concurrence with PCN#78 report provided February 23, 2016).The access roads in this segment run appear to along existing two track roads. Two sites were identified in in the vicinity of the 408 portion at Carlyle Lake.

Log# 022101515

- 11FY42 was recommended as not eligible and IHPA concurred in a letter dated 3/3/2016

- 11FY591 Report recommended site as not eligible. IHPA requested avoidance or Phase II. However, site location is outside of easement footprint of the HDD in this location. Therefore, site will be avoided by project.

Should you have any questions, please me by letter, telephone or email at 309/794-5380 or brant.j.vollman@usace.army.mil.

Sincerely

Brant Vollman
Project Manager
Regulatory Branch

Enclosures

Copies Furnished: (w/enclosures):

Ms. Amy Henke
St. Louis District
US Army Corps of Engineers
1222 Spruce Street
St. Louis, Missouri 63103-2833

Ms. Martha Chieply
U.S. Army Corps of Engineers
Omaha District Regulatory Chief
1616 Capitol Ave., Ste. 9000
Omaha, Nebraska 68102

Mr. Ed Rodriguez-Robles
St. Louis District
US Army Corps of Engineers
1222 Spruce Street
St. Louis, Missouri 63103-2833

CONCUR

By: Rachel Leibowitz
Deputy State Historic Preservation Officer

Date: 4-6-16

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, ROCK ISLAND DISTRICT
PO BOX 2004 CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61204-2004

REPLY TO
ATTENTION OF

March 28, 2016

Operations Division

SUBJECT: Additional information for St. Louis District 408 areas as related to DAPL Pipeline

Dr. Rachel Leibowitz
Illinois Historic Preservation Agency
1 Old State Capital Plaza
Springfield, Illinois 62701-1507

Log # 017101515

Dear Dr. Leibowitz:

The U.S. Army Corps of Engineers, Rock Island District (RI District) Regulatory Branch is assisting the U.S. Army Corps of Engineers, St. Louis District (St. Louis District) with the Dakota Access Pipeline Project (DAPL) for portions of the alignment in Illinois. The proposed 1,100-mile, 30-inch diameter, crude oil pipeline would extend from Stanley, North Dakota through South Dakota and Iowa to a delivery point at Patoka, Illinois. The purpose of this letter is to provide additional information on the Section 106 consultation and review, consult on the area of potential effects (APE) as related to the 408 process.

Late last week, right after the first set of additional information went out on the 408 concerns along the alignment in the St. Louis District portion of the alignment we were provided with a revised plan for the Coon Run Levee portion.

Coon Run Levee (Enclosure 1) –

- The access road in this segment has been changed to run along the alignment of the pipeline rather than along an existing two track road as originally proposed. This will also result in the access to this area overlapping with the avoidance measures from St. Louis District PCN #13 (Enclosure 2). Based on the avoidance plan there will still be **no adverse effect** to site 11ST192 by the prosed change to the project plans.

- This also results in a change to the pipe stringing area. This is the new area that extends out of the eastern side of the alignment. It is our understanding the applicant has also provided two hard copies and one electronic copy of the report to your office for the revised plan.

Should you have any questions, please me by letter, telephone or email at 309/794-5380 or brant.j.vollman@usace.army.mil.

Sincerely

Brant Vollman
Archaeologist
Regulatory Branch

CONCUR
By: Rachel Leibowitz
Deputy State Historic Preservation Officer
Date: 4-6-16

SEP 3, 2015

District Commander

The Osage Nation
Principal Chief Geoffrey Standing Bear
P.O. Box 779
Pawhuska, Oklahoma 74056

Dear Principal Chief Standing Bear:

The U.S. Army Corps of Engineers (Corps) Regulatory Branch has received Preconstruction Notifications (PCNs) associated with the proposed Dakota Access Pipeline Project (DAPL). The proposed approximate 1,150-mile, 30-inch diameter, crude oil pipeline would extend from Stanley, North Dakota through South Dakota and Iowa to a delivery point at Patoka, Illinois. The purpose of this letter is to initiate Section 106 consultation and review, determine your interest in consulting on this undertaking for those portions subject to the Corps jurisdiction, and to gather information that will assist the Corps in identifying historic properties.

The majority of the proposed 1,150-mile pipeline would be located in upland areas not requiring Corps authorization under Sections 10 or 404, and over which the Corps does not have control or responsibility. The Corps has regulatory authority and responsibility for those portions of the pipeline that require authorization under Section 10 of the Rivers and Harbors Act (33 U.S.C. 401 et seq.) and Section 404 of the Clean Water Act (33 U.S.C. 1344). When linear projects cross a single or multiple water bodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of nationwide permit authorization. Under our Regulatory authority, we are currently evaluating 209 single and complete crossings requiring PCN's. The locations of the PCN areas are enclosed along with an overall DAPL fact sheet, points of contact and maps. DAPL has voluntarily started archaeological surveys for the project. The Cultural Resource Inventory Reports that have been submitted to the Corps are available at the following ftp location ftp://ftp.perennialenv.com/ (User: EnergyTransfer, password: DAPL). Besides those provided at the FTP site, the Corps will make those survey results available to Section 106 consulting parties for review and comment as DAPL provides them.

The Corps will consult on those areas comprising the waters of the United States that will be directly affected by the proposed work or structures and uplands affected as a result of authorizing the work or structures. Corps regulations implementing the National Historic Preservation Act may be found at 33 C.F.R. 325, App. C.

Subparagraph 1.g.(1) defines the “permit area” as those areas comprising waters of the United States that will be directly affected by the work or structure, and uplands directly affected as a result of the authorization of the work or structure. Activities undertaken

outside the waters of the United States must meet all of 3 requirements set out in subparagraphs 1.g.(1)(i.)-(iii). Crossings of Section 10 navigable waters include the Missouri, James, Des Moines, Mississippi, and Illinois rivers. DAPL is also currently working with the Districts to obtain the necessary easements for crossing federal lands, as well as modifications of Corps projects pursuant to Section 14 of the Rivers and Harbors Act Appropriation Act of 1899 (33 U.S.C. § 408) (Section 408).

The DAPL project crosses 3 Corps Districts (Omaha, Rock Island and St. Louis). While each district will make permit decisions for those proposed regulated crossings in their district, the Omaha District is the lead Corps District in its oversight role in all coordination, permit evaluation, and compliance activities. Regulatory points of contact are Martha Chieply, Omaha District Regulatory Chief Martha.S.Chieply@usace.army.mil; (402) 995-2451 and Jason Renschler, Project Manager Jason.J.Renschler@usace.army.mil; (701) 255-0015, ext 2010. Please note that previous consultation on the project has also been initiated as part of the Corps Section 408 review process for the areas located on Corps Project Lands.

Please let the Corps know if you would like to consult on this undertaking. In addition, the Corps requests information that will assist us in identifying historic properties. The Corps would like to know if you have any knowledge or concerns regarding historic properties, including sites of religious importance, at the project locations you would like the Corps to consider. If there are any known Traditional Cultural Properties within those areas, please notify us by September 30, 2015. The Corps will treat any information provided with the greatest confidentiality.

We request your engagement and/or comments by September 30, 2015. If you are interested in participating in consultation for this proposal or desire additional information, please contact Mr. Joel Ames, Tribal Liaison Joel.O.Ames@usace.army.mil (402) 945-2909). Should you have site specific concerns regarding the project please contact Roberta Hayworth (St. Louis District) Roberta.L.Hayworth@usace.army.mil (314) 331-8833 or Ron Deiss (Rock Island District) Ronald.W.Deiss@usace.army.mil (309) 794-5185.

Sincerely,

John W. Henderson, P.E.
Colonel, Corps of Engineers
District Commander

January 22, 2016,

Operations, Readiness and Regulatory Division
Regulatory Branch

Principal Chief Geoffrey Standing Bear
The Osage Nation
P.O. Box 779
Pawhuska, Oklahoma 74056

Dear Principal Chief Standing Bear:

The U.S. Army Corps of Engineers, St. Louis District is working with the U.S. Army Corps of Engineers, Omaha District on the proposed Dakota Access Pipeline Project (DAPL). The pipeline is approximately a 1,150-mile, 30-inch crude oil pipeline that extends from Stanley, North Dakota, through South Dakota, Iowa, and ending just east of Patoka, Illinois. This project crosses three Corps Districts (Omaha, Rock Island, and St. Louis). Each district will make their own permit decisions but the Omaha District is the lead Corps District in oversight for this project. This letter is a follow-up for the letter dated September 3, 2015, sent from the Omaha District, stating if you had specific concerns regarding the project within each district to contact the Tribal Liaison. If you have concerns outside of the St. Louis District please continue to consult with Joel Ames, Tribal Liaison, Omaha District.

This project extends across the state of Illinois on a southeastern route for approximately 187 miles. The proposed project corridor crosses several features that fall under the jurisdiction of the St. Louis District. The St. Louis District is contacting your tribe to initiate Section 106 consultation for the areas of this project that falls within its boundaries. Cultural Resource Reports have been submitted and shared with the tribes. The reports for the St. Louis District have been revised are included on the enclosed compact disk. Also enclosed are the maps for the location of the pipeline located within the St. Louis District. On the enclosed maps, the red line indicates the proposed route of the pipeline and the areas marked in black indicate the areas that require authorization under Section 10 of the River and Harbors Act (33 U.S.C. §401 et. seq.) and Section 404 of the Clean Water Act (33 U.S.C. §1344). On the sheets titled Section 408 Review Area, the highlighted markings indicate the areas that require Section 408 permissions under Section 14 of the River and Harbors Act (33 U.S.C. §401 et. seq.). Section 408 permissions are only required for modifications to Corps Projects such as levees, navigation channels and lake projects.

The St. Louis District is requesting you review the maps and the reports on the compact disk and notify our office if you would like to enter into consultation, for the areas located within the St. Louis District, or have any concerns such as traditional cultural properties or sacred sites that are located within or near the location of the pipeline. Please notify our office no later than February 26, 2016, if you have any areas of concern or if you would like to consult on this project. If you have questions regarding this project, please contact Ms. Roberta Hayworth at (314) 331-8833 or at roberta.l.hayworth@usace.army.mil or Mr. Chris Koenig at (314) 331-8151 or at chris.k.koenig@usace.army.mil. A copy of this letter and the compact disk with the revised cultural reports has been furnished to Dr. Andrea Hunter.

Sincerely,

Danny D. McClendon
Chief, Regulatory Branch

Enclosures

FEB 0 8 2016

TRIBAL HISTORIC PRESERVATION OFFICE

Date: February 3, 2016 **File: 1516-780IL-10**

RE: Dakota Access Pipeline crossings at the Illinois River navigable channel at Milepost 901, Coon Run Levee, McGee Creek Levee, and the Carlyle Lake flowage easement in Pike, Morgan, Scott, and Fayette counties, IL

USACE – St. Louis District
Roberta Hayworth
1222 Spruce Street
St. Louis, MO 63103-2833

Dear Ms. Hayworth,

The Osage Nation Historic Preservation Office has received notification and accompanying information for the proposed project listed as Dakota Access Pipeline (DAPL) crossings at the Illinois River navigable channel at Milepost 901, Coon Run Levee, McGee Creek Levee, and the Carlyle Lake flowage easement in Pike, Morgan, Scott, and Fayette counties, IL. The Dakota Access Pipeline crosses some of the Osage Nation's most culturally sensitive ancestral territory not only at the locations listed above, but throughout the USACE's jurisdiction in Illinois along the pipeline corridor. One of our major concerns is adverse effects to culturally significant and sensitive sites including burials caused by inadvertent returns from Horizontal Directional Drilling (HDD) practices. The Osage Nation considers HDD operations under mounds or burials disrespectful to the Osage People and an unethical practice. DAPL has proposed HDD to circumvent the following sites: 11BR346, 11BR550, 11FY115, 11HA25, 11HA978, 11ST192, and 11ST582. DAPL has also proposed circumventing stream, river, and wetland crossings by HDD such as crossings at the Illinois River navigable channel at Milepost 901, Coon Run Levee, McGee Creek Levee, and the Carlyle Lake flowage easement in Pike, Morgan, Scott, and Fayette counties, IL. Therefore, the Osage Nation requests the following:

- due to the extremely high potential for inadvertent returns from HDD, the Osage Nation requests that the pipeline be rerouted to avoid the following burial mounds and associated site: 11HA25 and 11HA978,

- the Osage Nation requests monitoring at all locations along the pipeline corridor that will be subjected to HDD at stream or wetland crossings in the state of Illinois,

- additionally, the Osage Nation requests that the pipeline be rerouted to avoid the following sites that are significant to the Osage People: 11BR346, 11BR550, 11FY115, 11ST192, and 11ST582,

627 Grandview, Pawhuska, OK 74056, (918) 287-5328, Fax (918) 287-5376

- the Osage Nation also requests that monitoring occur at the following culturally sensitive sites within the pipeline corridor: 11BR532, 11BR545, 11MG529, 11BR553, and 11FY602,

- unfortunately a human burial was encountered within the pipeline corridor in Illinois at site 11ST598. The Osage Nation was not informed at the time of discovery and was unable to request that photographs not be taken of the remains. Photographing human remains is highly offensive to the Osage People. Therefore, the Osage Nation requests that all physical and digital copies of photographs of the human remains be destroyed, and the Osage Nation receive confirmation of completion from Colonel Anthony Mitchell, St. Louis District Engineer and Commander,

- Finally, oftentimes Osage burials are misidentified in the field as rock clearing piles. In order to avoid adversely effecting other burials located within the pipeline corridor, the Osage Nation requests that photographs of the rock pile located at site 11MP325 be submitted to the Osage Nation Historic Preservation Office for further analysis to determine whether the feature is a burial or a field clearing pile.

As previously stated, the Dakota Access Pipeline corridor in Illinois intersects highly sensitive locations of cultural importance for the Osage Nation throughout the USACE's jurisdiction in Illinois, not just at the Coon Run Levee, the McGee Creek Levee, or the Carlyle Lake Flowage Easement. It is vital to the Osage Nation that all culturally sensitive sites within the pipeline corridor be given due diligence and that adverse effects to these sites through inadvertent returns or other pipeline construction activities be avoided.

In accordance with the National Historic Preservation Act, (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings subject to the review process are referred in S101 (d)(6)(A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).

Should you have any questions or need any additional information, please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

Andrea A. Hunter, Ph.D.
Director, Tribal Historic Preservation Officer

Jackie Rodgers
Archaeologist

cc: Col. J.W. Henderson, USACE – Omaha District
Col. Anthony Mitchell, USACE – St. Louis District
Col. Craig Baumgartner, USACE – Rock Island District
Monica Howard, Energy Transfer
Michelle Dippel, HDR Inc.

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
1616 Capitol AVE
OMAHA, NEBRASKA 68102-9000

March 2, 2016

Absentee-Shawnee Tribe
Governor Edwina Butler-Wolfe
2025 S. Gordon Cooper Drive,
Shawnee, Oklahoma 74810

Dear Governor Edwina Butler-Wolfe:

Recognizing that tribes have special expertise in assessing the presence and potential eligibility of historic properties that may possess religious and cultural significance, the U.S. Army Corps of Engineers (Corps) Regulatory Branch is notifying you of an opportunity to conduct Tribal surveys at Preconstruction Notification (PCN) permit areas associated with the proposed Dakota Access Pipeline Project (DAPL). The purpose of this letter is to continue our responsibilities under Section 106 of the National Historic Preservation Act to identify possible historic properties of religious and cultural significance in PCN permit areas subject to Corps jurisdiction. DAPL has agreed to coordinate the Tribal surveys on PCN permit areas to supplement the previously provided Cultural Resource Inventory Reports and/or provide the opportunity for the tribes to monitor the construction activities. DAPL will be responsible for coordinating the tribal surveys in the PCN permit areas that are of interest to you.

Transparency between Tribes, DAPL and the Corps is critical to this success of this effort. If you or your Tribe are interested in conducting a survey or monitoring construction activities please provide the following information by emailing the Corps Omaha District Tribal Liaison, Joel Ames at joel.o.ames@usace.army.mil, by March 22, 2016.

1. Name of Tribe
2. Name of lead Surveyor/Monitor
3. Contact information (phone numbers, email, address, etc.)
4. Sites name/number your Tribe is interested in surveying/monitoring.

The Corps Omaha District Tribal Liaison will provide this information to DAPL, who will be responsible for all site visit logistics and schedule. Early identification of the locations is greatly appreciated to give DAPL the opportunity to secure landowner permission. To accurately document Tribal comments and/or concerns, after the site visit we are requesting Tribes provide us comments and concerns in writing. If your tribe is interested in this opportunity, please contact Corps Omaha District Tribal Liaison, Joel Ames at joel.o.ames@usace.army.mil or (402) 995-2909.

Should you have site specific PCN concerns within the St Louis District please contact Roberta Hayworth at roberta.l.hayworth@usace.army.mil, (314) 331-8833 or for the Rock Island District please contact Ron Deiss at ronald.w.deiss@usace.army.mil, (309) 794-5185.

Sincerely,

Martha S. Chieply
Regulatory Chief, Omaha District

From: Andrea Hunter
To: Hayworth, Roberta L MVS
Cc: Ames, Joel O NWO; Chieply, Martha S NWO; Michelle.Dippel@hdrinc.com; Howard, Monica; Jacqueline Rodgers
Subject: [EXTERNAL] Osage request for monitoring on DAPL
Date: Thursday, March 10, 2016 3:16:35 PM

Roberta,

Here is the list of sites we are requesting to monitor:

Corps jurisdiction

11BR346

11BR532

11BR545

11HA25

11HA978

11MG529

11MP325

11ST192

11ST582

11ST598

Non-Corps jurisdiction

11BR550

11BR553

11FY115

11FY602

Dr. Andrea A. Hunter

Director/THPO

Osage Nation Historic Preservation Office

627 Grandview Avenue

Pawhuska, OK 74056

Office Phone: (918) 287-5328

Office Fax: (918) 287-5376

Preserving America's Heritage

June 2, 2016

The Honorable Jo-Ellen Darcy
Assistant Secretary of the Army (Civil Works)
108 Army Pentagon
Washington, DC 20310-0108

Ref: Dakota Access Pipeline Project

Dear Ms. Darcy:

On May 19, 2016, the Advisory Council on Historic Preservation (ACHP) sent a letter to Lieutenant General Thomas P. Bostick, Commanding General and Chief of Engineers for the Corps of Engineers, regarding our objection to effect determinations made by the Corps for the referenced undertaking pursuant to Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 300101 et seq.) and its implementing regulations, "Protection of Historic Properties" (36 C.F.R. Part 800). I wanted to share a copy of the enclosed letter with you.

Subsequent to conveying our letter to Lieutenant General Bostick, the ACHP met with Energy Transfer, the project proponent, at their request on May 25, 2016, to discuss their involvement in the Dakota Access Pipeline Project (DAPL). We advised Energy Transfer of our desire for the Corps to participate in this meeting, but, unfortunately, no Corps representatives attended.

Energy Transfer representatives shared with ACHP staff an overview of the company, the purpose and need for DAPL, and the efforts it had undertaken to identify historic properties and contact federally recognized Indian tribes interested in areas along the anticipated project corridor. We understand that planning for DAPL dates to 2012. Energy Transfer indicated it spent extensive time and resources to identify historic properties, particularly archaeological sites. This information was provided to Indian tribes in 2014 and 2015 so they could share any concerns and make known their interest in investigating areas along the right-of-way. We were advised that consultants for the company had surveyed approximately 95 percent of the project right-of-way for the presence of historic properties, including the portions of the project outside of Corps and U.S. Fish and Wildlife (FWS) jurisdiction.

We appreciated receiving this information, however, it does not change the conclusions outlined in our letters regarding shortcomings in the Section 106 review carried out by the Corps and FWS. We continue to disagree with the Corps' findings regarding effects on historic properties and believe a comprehensive Programmatic Agreement (PA), as we recommended to Lieutenant General Bostick, be developed. The Corps should consider how the information gathered by Energy Transfer, as well as the information submitted to the Corps by the Indian tribes, could be used to support the PA. Such a PA could address multiple procedural issues including the following:

- Recognition of varying jurisdiction and authority over components of the DAPL Project;
- Completion of an appropriate identification effort and analysis of effects;
- Phasing of the Section 106 reviews to facilitate tribal assistance in identification of properties of concern to the tribes; and
- Consideration of effects to historic properties in portions of the undertaking outside the Corps' jurisdiction.

We look forward to assisting the Corps in this endeavor should it choose to resolve our objection by developing such an agreement. However, we recognize that, per 36 CFR § 800.5(c)(3) of our regulations, the final decision regarding the effects on historic properties is the responsibility of the Corps.

Should you have any questions or wish to discuss this matter further, please contact Reid Nelson at (202) 517-0206, or by e-mail at rnelson@achp.gov.

Sincerely,

John M. Fowler
Executive Director

Enclosure

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
CIVIL WORKS
108 ARMY PENTAGON
WASHINGTON DC 20310-0108

JUL 25 2016

Mr. John M. Fowler
Executive Director
Advisory Council on Historic Preservation
401 F Street, NW, Suite 308
Washington, D.C. 20001-2637

Dear Mr. Fowler:

This is in response to your letter dated June 2, 2016, concerning the U.S. Army Corps of Engineers compliance with Section 106 of the National Historic Preservation Act (Section 106) and associated effects determinations of "No Historic Properties Affected" and "No Adverse Effect" for the Corps undertakings associated with the Dakota Access Pipeline Project (DAPL). Elements of the DAPL require Department of Army authorization pursuant to Section 10 of the Rivers and Harbors Act (Section 10) and/or Section 404 of the Clean Water Act (Section 404), and permission pursuant to Section 14 of the Rivers and Harbors Act (Section 408).

It is the Council's opinion that the Corps effects determinations are incorrect and so you have requested that I, as the head of the agency, take into account the Council's opinion, in accordance with 36 C.F.R. § 800.4(d)(1)(iv)(B) and 36 C.F.R. § 800.5(c)(3)(ii)(A), prior to reaching any final decisions. I have fully considered your advisory comments and recommendations, which I discuss further in the enclosure.

After consideration of your letter and further review of the actions taken by the Omaha District, Rock Island District, and St. Louis District Commanders to comply with Section 106, the determinations of "No Historic Properties Affected" and "No Adverse Effect" as made by the Corps prior to the date of your letter are affirmed. As such, per 36 C.F.R. § 800.4(d)(1)(iv)(C) and 36 C.F.R. § 800.5(c)(3)(ii)(B), with the submission of this letter to your office, the State Historic Preservation Office, and other consulting parties, the Corps responsibilities for these undertakings under Section 106 are fulfilled, with details provided in the enclosure.

If you have additional questions, please contact Mr. Chip Smith, Assistant for Environment, Tribal, and Regulatory Affairs, at (703) 693-3655 or Charles.R.Smith567.civ@mail.mil.

Very truly yours,

Jo-Ellen Darcy
Assistant Secretary of the Army
(Civil Works)

Enclosure