



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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March 11, 2016

Ref: 8EPR-N

U.S. Army Corps of Engineers, Omaha District
CENWO-PM-AC
Attn: Brent Cossette
1616 Capitol Avenue, Suite 9000
Omaha, NE 68102

Re: Additional Comments on Dakota Access Pipeline Draft Environmental Assessment

Dear Mr. Cossette:

The EPA provided initial comments to the U.S. Army Corps of Engineers (USACE) in a January 8, 2016 letter on the Dakota Access Pipeline Draft Environmental Assessment (EA). Since that time, we have become aware of the proximity of the preferred alignment of the pipeline to the Standing Rock Sioux Tribe's Reservation as well as additional potential impacts to the drinking water supplies along the Missouri River. The drinking water intake for the Fort Yates, Standing Rock Reservation water system is located within 10 miles of the Missouri River crossing of Lake Oahe. Similarly, there are nearby water intakes for a tribal irrigation project and the main Standing Rock Reservation drinking water system, as well as individual drinking water wells located along the Missouri River. We recommend that the Draft EA be revised to assess potential impacts to drinking water and the Standing Rock Sioux Tribe, as described in more detail below. Based on our improved understanding of the project setting, we also recommend addressing additional concerns regarding environmental justice and emergency response actions to spills/leaks. Based on the importance of these concerns and the new information that would supplement the December 2015 Draft EA, we recommend the USACE prepare a revised Draft EA and provide a second public comment period.

Background: The Dakota Access Pipeline (DAPL) is described as a 1134-mile, 12-inch to 30-inch diameter pipeline crossing four states; transporting crude oil from the Bakken/Three Forks oil fields in North Dakota to Illinois. The segment of the project in North Dakota is estimated to be 358 miles long, including a 210-mile main pipeline and a 148-mile supply line. The proposal also includes six tank terminal sites and three to six booster and mainline pumps. The Draft EA focused almost exclusively on the two DAPL crossings of the Missouri River: the USACE's flowage easements upstream of Lake Sakakawea and federally owned tracts of lands managed by the USACE at Lake Oahe just upstream of the confluence with the Cannonball River and the Standing Rock Sioux Reservation.

EPA Additional and Expanded Concerns:

1. Protecting Drinking Water Resources: As noted in our January 8, 2016 letter, the EPA's main concern is protecting water resources from spills and leaks through prevention, planning, and monitoring. We enclosed with our original comments another pipeline EA comment letter (Sacagawea Pipeline) with more detailed information on emergency response planning for spills and leaks that we recommend for incorporation into the DAPL project. The details in that letter correspond with potential impacts to water supplies on Lake Sakakawea including those on the Ft. Berthold Indian Reservation. Because of the locations of the Missouri River crossings for the DAPL, we recommend additional planning be developed to protect drinking water supplies commensurate with the planning done for the USACE Sakakawea Pipeline EA. This planning should include Williston and other communities using the Missouri River above Lake Sakakawea as well as communities using the Missouri River below the Lake Oahe crossing. Although the main focus of the DAPL Draft EA are the crossings of USACE lands and easements, we recommend that the applicant's spill planning and emergency response efforts cover the entire length of the pipeline as the proposed pipeline crosses many creeks and rivers that could quickly convey a spill into the Missouri River or other water resources.

Downstream of the Lake Oahe crossing, Fort Yates is the closest public water supply intake, followed by the Standing Rock rural water system and Mobridge, South Dakota intakes. The Missouri River is used as the drinking water supply for much of western South Dakota and five Tribal Nations - the Cheyenne River, Crow Creek, Oglala, Rosebud and Lower Brule Sioux Tribes. The Mni Wiconi Rural Water System (intake from Missouri at Fort Pierre, South Dakota) provides drinking water to the Pine Ridge, Rosebud, and Lower Brule Reservations as well as the West River/Lyman Jones Water District. The revised Draft EA should disclose potential impacts to downstream water supplies from leaks and spills and include the water systems in emergency preparedness planning.

2. Emergency Preparedness Measures: The Draft EA notes that a facility response plan will be prepared and Dakota Access proposes to utilize the Supervisory Control and Data Acquisition (SCADA) system for remote oversight of the pipeline (page 65). We recommend that the NEPA analysis describe the typical size of leak that can be detected by SCADA, the time that would be required for detection and shutoff of the pipeline, and the size of a spill that could occur during that time period. It may be appropriate to require routine physical inspections in sensitive surface water and groundwater areas to augment the ability of the SCADA system to identify small volume leaks. For the sections of the pipeline in close proximity to sensitive water resources, we recommend consideration be given to the available alternative systems with more accurate rapid detection abilities than SCADA and establishment of a network of sentinel or monitoring wells along the pipeline, especially in sensitive areas with hydrologic connection to the Missouri River. It may be useful for the USACE and project proponent to consult with the Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) regarding pipeline leak and spill detection and emergency planning, if it has not already occurred. We can provide contact information for PHMSA if that would be helpful.

While the Draft EA notes that there is minimal risk of an oil spill associated with this project, our experience in spill response indicates that a break or leak in oil pipelines can result in significant impacts to water resources. We note the capacity of the proposed DAPL is 13,100 to 16,600 gallons

per minute of crude oil. Despite the expectation of a low probability of a significant spill reaching the Missouri River and lakes, the proposed Missouri River crossings are located 10 miles above the Fort Yates and 15-20 miles above the Williston, North Dakota, drinking water intakes. There would be very little time to determine if a spill or leak affecting surface waters is occurring, to notify water treatment plants and to have treatment plant staff on site to shut down the water intakes. We recommend that Dakota Access adequately plan, prepare and train for such an event and that the revised Draft EA include a requirement to work with the local water districts on spill response strategies and equipment specific to the drinking water intakes in and near the project. Further, we recommend the NEPA analysis describe additional mitigation measures regarding emergency preparedness to reduce the impacts in the event of a spill. Useful measures include the following:

- Emergency response plan that addresses oil spill response (including a cold weather/ice cover response) and identifies the appropriate agencies/organizations and responsible staff to contact in the event of an emergency response;
- Procedures for rapid notification to Public Water systems (PWS) (e.g., Williston, New Town, Fort Yates and Standing Rock PWS), and domestic well owners;
- Pre-positioned response assets, including equipment to address oil spills; and
- Spill drills and exercises that include strategies and equipment deployment.

In responding to both the January 2015 Bridger Poplar Pipeline and the July 2011 Exxon Silvertip Pipeline spill incidents, we learned that depth of cover surveys on a trenched pipeline during or immediately after significant hydrological events would be beneficial. We recognize that except in the case of a major flood and erosion event, depth of cover surveys would not be applicable to Dakota Access's Missouri River and Lake Oahe crossings due to the use of horizontal directional drilling to bore well below the river / lake bottom; however, such surveys may be appropriate for water body crossings that will not use this drilling technique. For this project, surveys could be triggered by a historically high river stage or the observation of ice damming at the location of the pipeline crossing. We recommend that the revised Draft EA assess and discuss the potential for scour and consider the inclusion of on-going depth of cover surveys associated with hydrological events.

In responding to the 2015 Bridger Poplar Pipeline spill, we noted that the prolonged oil/water contact and lack of evaporative loss due to ice cover caused a much larger than expected concentration of dissolved-phase organics making it to the subsurface intake at the water treatment plant. This is likely a unique situation to Bakken crude released into an iced-over waterbody. Therefore, we recommend that revised Draft EA note that a winter response on ice for a spill scenario involving Bakken crude actually can be more difficult than a "typical" ice response. In addition, we recommend that Dakota Access include planning for winter response scenarios in their oil spill contingency plans, including measures to ensure that staff are adequately trained for a potential winter response and that an oil spill response organization with winter response capabilities has been identified.

3. Potential Impacts to Standing Rock Sioux Reservation: The Draft EA should be revised to disclose the proximity of the Standing Rock Sioux Reservation and potential impacts to resources downstream of the Lake Oahe crossing. While maps have been added to the Draft EA, no tribal lands or reservations are shown on any of the maps. The Draft EA should be revised to disclose the proximity of the Standing Rock Sioux Reservation and other tribal lands such as the Ft. Berthold and Cheyenne River Sioux Reservations. The analysis should be expanded to disclose potential impacts

to water resources and environmental or cultural sites that may be affected by potential leaks and spills.

4. Environmental Justice: We recommend a more thorough Environmental Justice (EJ) analysis be developed for the revised Draft EA. For linear construction projects, census block groups or census tracts are the preferred level of analysis rather than the county by county or state by state analysis presented in the Draft EA (pages 60, 61 &76). A screening level analysis for EJ, such as shown on EPA's EJScreen at <http://ejscreen.epa.gov/mapper/>, indicates there are several census block groups with substantial minority and/or low income demographics that could be potentially impacted by the project. The areas of analysis to assess potential impacts to EJ communities should correspond to the impacts of the proposed project instead of only the area of construction disturbance. For oil pipeline projects, potential impacts to EJ communities would include the effects of leaks and spills to downstream water supplies (both drinking water quality, agricultural uses, and costs) and aquatic resources such as fish and riparian vegetation used by EJ populations. In addition to analyzing potential EJ impacts, Executive Order 12898 on Environmental Justice (February 16, 1994) also requires public outreach to potentially affected EJ communities.
5. Tribal Coordination: The Draft EA also did not include any information on coordination and consultation with tribal governments other than in connection to historic and cultural resource impacts. For example, no Tribes were included in Chapter 7 (page 81) listing federal, tribal, state and local agency consultation and coordination. We recommend that Tribal consultation and coordination be more thoroughly addressed and the related information be added to the revised Draft EA.
6. Alternatives Analysis: Section 2.1.3 Alternative 3 – Route Alternatives (page 6) describes the methodology for developing the DAPL proponent's preferred alignment. The criteria considered in developing the preferred alignment included avoiding areas with many wetland resources and a wellhead source protection area near Bismarck. However, the methodology did not discuss how impacts to water resources were more broadly considered in developing the preferred alignment. We note that crossings of the Missouri River have the potential to affect the primary source of drinking water for much of North Dakota, South Dakota and Tribal Nations. Potential spills and leaks to the Missouri River (and tributaries) would quickly affect drinking water intakes and large areas of riparian resources such as wetlands, habitat, and plant resources. For example, depending on the flow rate of water in Missouri River, it appears that a major spill at the Lake Oahe crossing could reach the Fort Yates water intake within a matter of hours. We recommend that the discussion of the route alternatives be expanded to discuss how the preferred alternative's Missouri River crossing locations were determined and whether there are other available routes or crossing locations that would have reduced potential to water resources, especially drinking water supplies.

We again thank you for the opportunity to review the USACE Dakota Access Pipeline Draft EA posted on December 28, 2015. Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act and Section 309 of the Clean Air Act. If further explanation of our comments is desired, please contact me at (303) 312-6704, or your staff may contact Dana Allen at (303) 312-6879 or by email at allen.dana@epa.gov. We look forward to reviewing the revised Draft EA and the Draft Finding of No Significant Impact (FONSI) when available.

Sincerely,



Philip S. Strobel
Director, NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation