Scientists support need for revised environmental and cultural impact assessments for the Dakota Access Pipeline Project

Inadequate environmental and cultural assessments of potential impacts caused by resource extraction can result in the loss of ecosystem values and services that communities depend on. The Standing Rock Sioux Tribe of North Dakota, USA, are concerned that recent environmental and cultural assessments conducted ahead of the proposed Dakota Access Pipeline (DAPL) are inadequate, unlawful and would destroy culturally important areas. As a result, the Standing Rock Sioux Tribe have filed a lawsuit in the United States District Court requesting revised environmental and cultural impact assessments and greater oversight from the District Court over the responsible federal agency, U.S. Army Corps of Engineers.

Background on Dakota Access Pipeline

The Dakota Access Pipeline (DAPL) Project is a 30-inch diameter pipeline proposed by Dakota Access, LLC (Dakota Access), spanning approximately 1,150 miles to transport crude oil from northwest North Dakota to the Patoka, Illinois hub facilities[1]. To date, concerns have been raised with regards to the legal processes undertaken to approve the construction of pipeline segments in North Dakota. The Standing Rock Sioux Tribe of Fort Yates, North Dakota has filed a lawsuit against the United States Army Corps of Engineers[2], claiming that environmental and cultural assessments ignore important ecological, cultural, and socioeconomic impacts this project would have on the Tribe and region[2].

What's the problem?

Standing Rock Sioux Tribe is concerned about the construction of DAPL that would pass under the Missouri River (at Lake Oahe), which is located a half-mile upstream of the tribe's reservation boundary. Potential spills from the pipeline could impact the drinking water of the Standing Rock Sioux Tribe, as well as thousands of others downstream who rely on the river for drinking water and irrigation. At the same time, the Missouri River and its associated wetlands in North Dakota, support diverse and rare fauna, including the Pallid Sturgeon (*Scaphirhynchus albus*), which is federally listed as Endangered on the U.S. Endangered Species Act[3], and Paddlefish (*Polyodon spathula*), which is currently listed as Vulnerable by the International Union for the Conservation of Nature[4]. To date the potential impacts of DAPL construction, or any potential spills, on aquatic or terrestrial species has not been adequately assessed[2].

Pallid Sturgeon (*Scaphirhynchus albus*)
Photo credit: Joel Sartore

Paddlefish (*Polyodon spathula*)
Photo credit: Solomon David

Pallid Sturgeon and Paddlefish represent an ancient lineage of fishes inhabiting the waters of the Missouri River in North Dakota. Source: North Dakota Game and Fish Department (https://gf.nd.gov/)

The DAPL project is just one of many current haphazard approaches to continued natural resource extraction, which overlook the broader consequences of further oil development[5]. We as scientists are concerned about the potential local and regional impacts from the DAPL, which is symptomatic of the United States' continued dependence on fossil fuels in the face of predicted broad-scale social and ecological impacts from global climate change. While the DAPL construction was being rushed through without adequate impact assessment, President Obama signed the Paris Agreement under United Nations Framework Convention on Climate Change, agreeing that the United States will take actions to reduce its global greenhouse gas emissions in line with the 2030 Agenda for Sustainable Development. We are concerned that further extractive practices, such as those supported by the DAPL, do not comply with commitments made under the Paris Agreement to cut fossil fuel emissions by 2030.

Resolution

A lack of transparency in policies and processes has resulted in inadequate environmental and cultural impact assessments for DAPL in the State of North Dakota, therefore,

We support halting any construction of the DAPL until revised environmental and cultural assessments are carried out as requested by Standing Rock Sioux Tribe in Case 1:16-cv-01534, and in light of recent Paris Agreement commitments, call for the United States Federal Government to give explicit consideration to how this and any other such proposed national energy strategies tradeoff with public health, environmental justice, and biodiversity conservation.

Authors

Stephanie Januchowski-Hartley, PhD, Postdoctoral Researcher, Universite Paul Sabatier, and Society for Conservation Biology Freshwater Working Group (President)

Anne Hilborn, PhD Candidate, Virginia Tech

Katherine Crocker, PhD Candidate, University of Michigan

Asia Murphy, PhD Candidate, Pennsylvania State University

References 1. Dakota Access Pipeline Project, United States Fish and Wildlife Service Environmental Assessment, Grassland and Wetland Easement Crossings, https://www.fws.gov/uploadedFiles/DAPL%20EA.pdf Accessed 08, September 2016; **2.** Standing Rock Sioux Tribe v U.S. Army Corps of Engineers, Case 1:16-cv-01534, Complaint for Declaratory and Injunctive Relief, 27 July, 2016; Accessed 08, September 2016; **3.** U.S. Fish & Wildlife Service Endangered Species. *Scaphirhynchus albus.* https://ecos.fws.gov/ecp0/profile/speciesProfile.action?spcode=E06X; **4.** Grady, J. (U.S. Fish & Wildlife Service). 2004. *Polyodon spathula*. The IUCN Red List of Threatened Species 2004: e.T17938A7638243. http://dx.doi.org/10.2305/IUCN.UK.2004.RLTS.T17938A7638243.en. Accessed 09, September 2016; **5.** Palen et al. 2014. Consider the global impacts of oil pipelines. *Nature* 510: 465-467.

Supported by:

Sukhmani Kaur Mantel, PhD, Senior Researcher, Rhodes University (South Africa) and Society for Conservation Biology Freshwater Working Group (Vice-President)

Helen Margaret Barber-James, PhD, Head of Department of Freshwater Invertebrates, Rhodes University (South Africa) and Society for Conservation Biology Freshwater Working Group

Jessa Madosky, PhD, Assistant Professor, University of Tampa and Society for Conservation Biology, North America Section Society for Conservation Biology (President-Elect)

Carlos Carroll, PhD, Klamath Center for Conservation Research

Karen V Root, PhD, Bowling Green State University

Auriel Fournier, PhD Candidate, Department of Biological Sciences, University of Arkansas

Leslie E Decker, PhD Candidate, University of Michigan

Joseph P Crocker, PE, PhD, SE

Emily Nash, MPH Candidate, University of Michigan

Kaitlin Stack Whitney, PhD, Visiting Research Scholar, Rochester Institute of Technology

Jason D Schooley, Fisheries Biologist

Courtney A Schultz, PhD, Colorado State University

Katherine E O'Reilly, PhD Candidate, Department of Biological Sciences, University of Notre Dame

Oliver Keyes, Rapid7

Michelle Fearon, PhD Candidate, University of Michigan

Scientists who wish to add their name in support can email

Stephanie Januchowski-Hartley

stephierenee (at) gmail (dot) com.