"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

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July 6, 2015

Daniel Cimarosti
North Dakota Regulatory Office
1513 South 12th Street
Bismarck, North Dakota 58504

Dear Mr. Cimarosti:

Re: BakkenLink Pipeline
Application No: NOW-2011-1555-BIS

The North Dakota Game and Fish Department has received notification of BakkenLink Pipeline, LLC's proposal to install a 16-inch steel oil pipeline beneath Lake Sakakawea. The crossing length is approximately 13,000 linear feet. Strings of pipeline would be welded together in sections on the north shoreline and pulled across the lake by a linear winch. Once pulled across, it would be filled with water and lowered onto the lakebed. The lowering of the pipeline at the north and south shorelines would be completed by excavating a trench along both shorelines. Within the lake proper, a "jet" sled would be utilized to extract or suspend soils from beneath the pipeline, creating a jetted trench, and discharge or re-deposit the resulting slurry into the newly jetted pipeline trench at the back end of the jet sled. Depth of the trench is targeted for 6 feet. The proposed project is located in the Sections 21, 27, 28 & 34, Township 154 North, Range 95 West in McKenzie and Williams County, North Dakota.

Lake Sakakawea provides excellent sportfishing opportunities and aquatic habitat within the State of North Dakota for which measures need to be taken to protect these resources. Given the importance of Lake Sakakawea and the recent oil spills and pipe failures, the Department recommends additional precautions should be implemented into the design of pipes crossing under the State's waterways. One primary means of minimizing a potentially large pipeline failure is to incorporate pressure sensing valves on both sides of the water way. These valves should be placed as close to the waterway as possible yet out of the flood plain to reduce the potential to get damaged from ice and other floating debris. Additionally, a maintenance schedule needs to be developed to insure the integrity of the pipe for years and decades to come. Although this may mean the pipeline needs to be shut down for a period of time, it is important to minimize the risk to Lake Sakakawea and it's resources.

The upper reaches of Lake Sakakawea have significant levels of sand and sediments that have been transported from the river reaches and dropped out into the old river channel due to reservoir levels. If reservoir levels are low and there are high inflows from the Yellowstone and Missouri Rivers,

there would be potential for sediments to be transported farther down the reservoir leaving the pipeline susceptible for failure. The Department therefore recommends that the pipeline be buried significantly deeper in the thalweg due to the potential for erosion and shifting of the lake bed sediments.

The applicant indicates a rock cap will be placed on top of the pipeline from 1855 msl to the water's edge. The Department recommends the rock cap be constructed from 1855msl to a minimum of 1805 msl. The rock cap shall not be constructed higher than the existing shoreline level to eliminate any man-made obstructions within the lake pool.

Aquatic Nuisance Species (ANS) rules were enacted by the North Dakota Game and Fish Department in 2008. These regulations are to prevent the introduction of undesirable species of plants and animals. Preventive measures are now required to bring equipment into the state. State law allows for fines up to $1,000 and the confiscation of equipment.

Required measures include removing any and all aquatic vegetation from vessels, motors, trailers, or construction equipment; all water shall be drained from bilge(s) or confined spaces on vessels, boat motors or construction equipment; all species of ANS (this list can be found on the North Dakota Game and Fish Department website) must be removed from vessels, motors, trailers or construction equipment; and water must be drained from confined spaces on vessels, boat motors or construction equipment. These ANS preventative measures extend to any and all vehicles, vessels, trailers, pumps and such equipment that will be used in the project or any/all construction efforts connected with this project in or on the waters of the State. This requirement should be included if occurring during the open water season or if the operation proceeds on the ice pack.

The contractor or his agents or subcontractors must provide the Department a reasonable opportunity to inspect any and all vehicles, vessels, pumps and equipment that will be used in the project in or on the waters of the state prior to those items being launched or placed in the waters of the state. A minimum of 72 hours notice must be provided to the Department for scheduling an inspection. The Department's ANS Biologist, Mr. Fred Ryckman, is to be contacted at the Riverdale Office (701-770-0920) for equipment inspections or any additional information regarding ANS prevention protocols.

Due to the nature of the proposed project, the Department suggests implementing the following recommendations to minimize impacts to fish and wildlife resources:

1. Any unavoidable losses of native forest or riparian forest shall be replaced with similar species on a 2:1 basis by incorporating a mitigation planting into the impacted forest to complement the existing woody vegetation.

2. Disturbed areas should be planted to a native grass mixture.

3. Erosion control measures should be implemented to minimize the opportunity for sediments to enter the waterways.

4. We request work not take place within the lake from April 15 to June 1to protect the aquatic environment.

5. During construction, the area needs to be marked and patrolled to assure safety for the boating public.

Sincerely,

Steve Dyke

(for) Greg Link
Chief
Conservation & Communication Division

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