Effects of the Line 3 Oil Pipeline on Gray Wolves (Canis lupus) on the Fond du Lac Reservation

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This project used an online mapping tool (ArcGIS) to generate wolf location maps. Wolf and Line 3 location shape files were given to the researcher from a Fond du Lac Resource Management Division wildlife biologist. The distance a wolf was located near the pipeline before and during Line 3 pipeline construction for each wolf were manually measured with a mapping software tool (over 6000 measurements), and compared. The question was: Is there a significant impact on Gray Wolf (Canis lupus) movement after Line 3 pipeline construction went through wolf pack territories on the Fond du Lac Reservation? The hypothesis was: If wolf movement in pipeline areas are measured before and after pipeline construction, then construction will have an impact on wolf movement on the Fond du Lac Reservation. The hypothesis was not supported. Overall, the distances the wolves were from the pipeline before and during construction were not significantly different. Possibly, the wolves were not significantly impacted by pipeline construction, because they live near humans on a daily basis, and are used to loud noises from our cars, tractors, and other equipment. Residential area expansion may also impact wolves positioning their dens near the pipeline, as they continually hear and see humans without a negative impact. The DNR will benefit from this study by gaining a better understanding of wolf movement on the Fond du Lac reservation and how wolves are affected by significant disturbances such as pipeline construction in their territories.

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