



## Muskoxen in the Arctic National Wildlife Refuge

Heard of Muskoxen, US Fish and Wildlife Service

Muskoxen are an important component of the Arctic environment. They were successfully restored to the Arctic National Wildlife Refuge in 1969 and 1970 after disappearing from Alaska in the 1890s (and possibly from the North Slope by about 1860).<sup>1,2</sup> After a rapid increase, numbers of muskoxen on the Refuge stabilized at less than 350 and now might be declining because of low calf production in recent years.<sup>3</sup>

Muskoxen live on the coastal plain of the Arctic Refuge on a year-round basis<sup>4</sup> and therefore would be vulnerable to winter and summer oil exploration activities, as well as year-round production.<sup>5</sup> Most of the animals (about 250) live in the 1002 coastal plain area all year.<sup>3,6</sup>

Snow depth limits access to muskoxen's winter habitat and in years of deep snow or a long snow season fat reserves are depleted and fewer calves are produced. Muskox calves are born in April and May, several weeks before green forage is available and pregnant females must maintain their body weight throughout winter to have enough reserves to produce milk for a calf.<sup>3,7</sup>

Muskoxen frequently use areas in or near riparian habitats that are also sites of important sources for water and gravel needed for exploration drilling and development.<sup>5,6,8</sup> If muskoxen are displaced from winter habitats into areas of deeper snow, the muskoxen will expend more energy, possibly affecting their survival. If muskox groups are disturbed during the calving period in April and May, the mortality of young calves will likely increase because they have difficulty remaining with a running group. The loss or displacement of a few animals or groups is predicted to have a major impact on this small population.<sup>9</sup>

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