

## Comparison of Documents Norton: FWS-WDC

*In a letter dated May 15, 2001 to the Secretary of Interior, Gale Norton, Senator Frank Murkowski (Alaska), then Chairman of the U.S. Senate Committee on Energy and Natural Resources, asked a series of questions to "help Congress analyze this issue" (possible oil development in the coastal plain of the Arctic National Wildlife Refuge). See attached copy.*

Questions relating to caribou were:

### **Caribou**

1. What is the Porcupine caribou herd's historic calving range?
2. Are there portions of the 1002 area where core calving does not historically occur?
3. What has been the impact of development in Prudhoe Bay on the Central Arctic caribou herd?
4. Over 1,000 miles of seismic exploration was conducted in the 1002 area during the winters of 1984 and 1985. Concurrently, a well was drilled on Native lands over two winters in the area. Did this exploration have any negative impact on the Porcupine caribou herd?

The U.S. Fish and Wildlife Service (FWS) provided the Department of Interior with answers to the questions regarding caribou and oil, gas and mineral activities on National Wildlife Refuges. See attached copy.

A letter dated July 11, 2001, signed by the Secretary of Interior, Gale Norton, transmitted answers to Senator Murkowski (now Ranking Member of the Committee on Energy and Natural Resources). See attached copy.

The following material provides a comparison of differences in caribou information provided by Secretary Norton to those provided by the U.S. Fish and Wildlife Service (FWS).

1. What is the Porcupine caribou herd's historic calving range?

**Secretary Norton:** "calving range of the Porcupine caribou herd (PCH) covers an area of approximately 8.9 million acres"

**FWS:** Did not provide an acreage figure.

**Secretary Norton:** "Concentrated calving occurred primarily outside of the 1002 Area in 11 of the last 18 years."

**FWS:** (response to question # 2) "There have been PCH calving concentrations within the 1002 area for 27 out of 30 years"

**Secretary Norton:** "Surveys indicate that no calving occurred in the 1002 area in 2001."

**FWS:** Did not provide a similar statement (surveys had not been conducted yet).

2. Are there portions of the 1002 area where core calving does not historically occur?

**Secretary Norton:** "Yes... the core calving area varies from year to year depending on snow melt conditions.... Furthermore, since 1983, the concentrated calving area has never extended to the undeformed area west of the Marsh Creek anticline in the 1002 Area (See Figure 3). (Note: map shows calving concentrations for each year 1983-2000 with respect to "undeformed area")

**FWS:** "calving concentrations have not occurred on a relatively small portion (Canning delta and northern coastal margin) of the Arctic Refuge "1002 Area." Portions of the eastern segment of the Central Arctic Herd use the Canning River delta area for calving....Calving and early summer seasons (late May to early July) are the periods of greatest sensitivity of caribou...Figures 1 and 2 show distribution of calves at birth. Figure 3 provides a more complete representation of caribou use during the entire sensitive time period, including use of insect relief habitats by cows and young calves. Dense aggregations of the PCH frequently use the Canning River delta and coastal areas of the 1002 Area for insect relief. (Norton omits statements of the sensitive season, and use of the Canning River delta for insect relief)

[**Note:** FWS Fig 3 is a map which shows use of essentially the entire 1002 area by caribou during the sensitive period. FWS Fig 1 shows concentrated calving areas for 1961, 1972-1982. It documents concentrated calving west of the Marsh Creek anticline. Secretary Norton apparently chose to not provide this information (FWS Fig 1 and 3), and instead provided a different Fig 3 which is a map for 1983-2000 when concentrations were east of the anticline].

**Secretary Norton:** "In years when the snow melt occurs late in the spring, as it did this past year, the concentrated calving area tends to be further to the south and east into Canada outside the 1002 area entirely."

**FWS:** "Snow melt conditions and associated plant phenology vary annually. Therefore, caribou require free passage to these variable areas before giving birth, and maternal females with young must be able to freely move to optimal forage throughout the early summer season....Calf production and early survival of calves are lower during such years (late snow melt) than when snow melt is normal and a majority of caribou give birth in the refuge coastal plain. For example in 2000 calving was delayed resulting in calving in Canada. Initial production of calves was 71%, average is 80%; the July calf:cow ratio was 44, average is 60. In years when calving occurs primarily in Canada, the entire

calving segment moves west into the 1002 area during the second half of June where they gather with other segments of the herd (bulls, barren cows, yearlings) of the herd.

[**Note:** Secretary Norton omits all FWS information regarding lower calf production and survival during years when the herd does not reach the 1002 Area. Also omitted is the information that in years when calving occurs in Canada, the entire herd moves west into the 1002 area after calving. These omissions help to create an illusion that the 1002 Area is not so important for caribou and caribou survival.]

### 3. What has been the impact of development in Prudhoe Bay on the Central Arctic caribou herd?

**Secretary Norton:** "The Central Arctic Herd has grown since the beginning of oil field development from an estimated 5,000 animals in 1975 to 20,000 animals in 1997."

**FWS:** "When oil development first began on the north slope in the early 1970's this herd was quite small, about 5,000.... During the late 1970's and 1980's the herd grew quite rapidly to about 23,000. During the early 1990's it declined to about 18,000, and then increased to its current level of 27,000 in the year 2000."

[**Note:** Norton omits evidence that the herd declined during the early 1990's.]

**Secretary Norton:** "Parturition and recruitment data do not support the hypothesis that oil fields adversely affect caribou productivity. Between 1978 and 1992, the herd had cow/calf ratios within the range observed for three other herds in undeveloped areas. Within the Central Arctic Herd, from 1997 to 1999, parturition rates in the western range were greater or equal to those in the eastern range were also greater than or equal to those in the eastern range."

**FWS:** "During 1988 to 1994, when weather conditions were more severe, the calf birth rate in the western segment (affected by development) was 64 percent. The birth rate for the eastern segment (disturbance free) during the same period was 83 percent (Cameron 1995). Frequency of reproductive pauses (year that a female does not produce a calf) in the affected area was higher (36 percent) than for the disturbance free segment (19 percent). During the early 1990's, calving habitat loss, summer movement disruption and weather conditions apparently reduced summer nutrition and autumn body condition of females sufficiently to influence breeding pauses and calf production."

[**Note:** Norton omits the above information provided by FWS and instead reports normal or higher recruitment rates for the western range (affected by development) during 1997 to 1999 when weather conditions were favorable. Norton also mentions that during 1978 to 1992 that birth rates were within the range of other herds in undeveloped areas, but by omitting the FWS information regarding significant differences between east and west segments during years of poor weather, the negative influence of development, cumulative with poor weather is not reported. This helps create a false conclusion that there is no negative population level effects from development.]

**Secretary Norton:** "When development expanded into the Kuparuk area during the early 1980's, industry worked to consolidate facilities and occupy less space. Separation of pipelines from roads and adequate elevation of pipes above the ground improved the caribous' ability to move freely in relation to pipes above the ground improved the ability of the caribou to move more freely in relation to these expansion areas although cows with young calves continue to avoid developed areas."

**FWS:** "When development expanded into the Kuparuk area during the early 1980's, industry worked to consolidate facilities and occupy less space. Separation of pipelines from roads and adequate elevation of pipes above the ground improved the caribous' ability to move freely in relation to these expansion areas. However, notwithstanding these newer design features, cows with young calves were displaced from developed areas by four or more kilometers even when traffic was reduced (Dau and Cameron 1986, Cameron et al. 1992)."

"By the mid 1980s, caribou use of the Kuparuk and Milne fields during calving declined and the concentrated calving area shifted to the southwest, away from the industrial zone (Cameron et al. 1992, Wolfe 2000). This shift has continued through 2000 (Lawhead and Johnson 2000). Only sparse calving activity continues within less disturbed pockets of the oilfield areas (Lawhead and Johnson 2000). The relatively undisturbed eastern calving grounds of the Central Arctic Herd did not show any directional shift during the same time period (Wolfe 2000). The amount of forage available for cows at the time of peak lactation in the area of shifted calving concentration is lower than that for the area where caribou formerly calved. The amount of forage did not change significantly for the eastern calving concentration area, which was not affected by development (Figure 4)."

[**Note:** Secretary Norton omits the entire second FWS paragraph which documents a major alteration of calving habitat use by the western segment of the CAH which is affected by oil development. This alteration did not occur for the eastern segment which is currently not affected by development. By this omission, the implications of a shift in concentrated calving of the Porcupine Caribou Herd in response to development in the Refuge are avoided.]

4. Over 1,000 miles of seismic exploration was conducted in the 1002 area during the winters of 1984 and 1985. Concurrently, a well was drilled on Native lands over two winters in the area. Did this exploration have any negative impact on the Porcupine caribou herd?

**Secretary Norton:** "There is no evidence that the seismic exploration activities or the drilling of the Kaktovik Inupiat Corporation exploratory well on Native lands have had any significant negative impact on the Porcupine caribou herd. The Legislative Environmental Impact Statement (LEIS) concluded that these activities "resulted in no apparent adverse effects on either [the Porcupine or Central Arctic Caribou herds.]" The LEIS also concluded that "winter oil exploration, including drilling, would not affect the Porcupine Caribou herd," and that "disturbance and displacement of the caribou herds from the activities of summer surface geology would be negligible."

**FWS:** "No studies were conducted to determine the effects of the above activities on the PCH. Considering the scope and timing of the 2D seismic program of 1984 and 1985, and the KIC exploratory well, it is unlikely that there have been significant or direct effects to the PCH. This does not necessarily mean that future exploration activities would have the same consequences. Rather, these activities must be evaluated on a case by case basis."

[**Note:** Secretary Norton omitted the cautionary statement by FWS that future activities would not necessarily have the same consequences and would have to be evaluated separately.]