

FORTYMILE CARIBOU HERD HARVEST PLAN

2006–2012



This plan was developed by a coalition of the, Fairbanks, Upper Tanana/Fortymile, Central, Delta Junction, and Eagle Advisory Committees and the Eastern Interior Regional Subsistence Advisory Council in cooperation with Yukon Fish and Wildlife Management Board, Yukon Department of Environment, Yukon First Nations and the Alaska Department of Fish and Game.

Adopted by the Board of Game in March 2006
Endorsed by the Federal Subsistence Board in May 2006



INTRODUCTION

This plan has been developed as a guide for managing harvest of the Fortymile Caribou Herd (FCH) in Alaska from 2006 through 2012. This plan retains many of the provisions of the first harvest plan for Fortymile caribou that guided harvest of the herd between 2001 and 2005. As was the case with the previous plan, the Fortymile Caribou Herd Harvest Plan 2006–2012 (“Harvest Plan”) was developed by representatives from the Central, Delta Junction, Eagle, Fairbanks and Upper Tanana/Fortymile State Fish and Game Advisory Committees (F&GACs), and the Eastern Interior Regional Advisory Council (EIRAC). Important contributions were added by participants from the Yukon Fish and Wildlife Management Board, the Yukon Department of Environment and Yukon First Nations. The Alaska Department of Fish and Game Division of Wildlife Conservation provided support in developing the plan.

The Harvest Plan includes recommended actions and regulations governing overall herd harvest levels, allocation of harvest between Alaska and Yukon and between different areas in Alaska, and harvest management options (permits, seasons, bag limits, methods and means). It also includes other information to help guide future decisions regarding harvest of Fortymile caribou, including herd history and historic harvest data. The Harvest Plan was developed in the spring and summer of 2005 for review by the involved advisory committees, the EIRAC and the public during fall 2005. The Alaska Board of Game (BOG) endorsed the plan at its meeting in March 2006 and the Federal Subsistence Board (FSB) passed a resolution in support of the plan in May 2006.

The specifics of managing the Yukon FCH harvest allocation will be developed by the Yukon Fish and Wildlife Management Board, the Yukon Department of Environment and Yukon First Nations.



BACKGROUND

FORTYMILE CARIBOU HERD PLANNING

The Fortymile Caribou Herd Management Plan (“Management Plan”) was completed in October 1995 by the Fortymile Caribou Herd Planning Team. The primary purpose of the Management Plan was to help restore the FCH to its former range and abundance. It addressed many aspects of herd management and included provisions to reduce caribou mortality by decreasing harvest and by implementing a non-lethal predator control program. The plan provided a guide to management of the FCH from 1995 through 2000. During that time harvest of Fortymile caribou was limited to a quota of 150 bulls per year.

In 1999, with the herd increasing in size and the Fortymile Caribou Herd Management Plan soon to expire, several state fish and game advisory committees began a cooperative effort to develop a framework for expanding opportunities to harvest the herd. This initial harvest plan provided for increasing the harvest quota from 150 bulls per year to 2-3% of the estimated population size and allowed for annual quota increases if the herd grew by 10% or more in the previous year. ADF&G conducted periodic photo census counts and modeled annual population trends to estimate herd population size and growth rate. The Alaska BOG endorsed the 2001–2006 Harvest Plan and adopted new FCH hunting regulations in March 2000. The FSB approved the plan and revised regulations later that spring.

In the winter of 2004–2005, with the 2001–2006 Harvest Plan nearing its end and in order to produce an update within the BOG’s two-year meeting cycle, the involved advisory committees began reviewing information on FCH population status and harvest and generating ideas for a *new* harvest plan. On July 7, 2005, representatives of the Delta Junction, Eagle, Fairbanks and Upper Tanana/Fortymile Advisory Committees (Central Advisory Committee was unable to attend), the EIRAC, the Yukon Fish and Wildlife Management Board, Yukon Department of Environment and the T’rondëk Hwéchín First Nation, met in Tok to discuss the FCH population and harvest and seek agreement on recommendations to be included in an updated harvest plan. Staff from Alaska Department of Fish and Game, Divisions of Wildlife Conservation and Subsistence, the Bureau of Land Management, the Tetlin National Wildlife Refuge and the National Park Service provided technical support for this meeting.

Participants in the July 7 meeting reached agreement on the basic provisions of the draft plan which were circulated for review and comment by the F&GACs, EIRAC and the general public. The key points that emerged from the meeting that are a basis for this Harvest Plan include:

- The FCH, with the latest population estimate at 40,000 (2005) down from 43,375 (2003), has not grown as rapidly as envisioned in the initial harvest management plan.

- The group reaffirmed the commitment to support growth of the FCH so that it will continue to expand into its historic range in both Alaska and the Yukon and to provide for greater harvest.
- The harvest quota for Alaska should remain at 850 caribou, with up to 25% cows, until the herd reaches 50,000 caribou.
- Because the ADF&G has less funding available for extensive monitoring of the FCH, the new harvest plan needs to be implemented within a more standard survey and inventory program.
- Because the FCH is an Intensive Management population under Alaskan law, and because the mortality over the last two years has exceeded the calf production, it *is absolutely* necessary to implement a lethal wolf predation control program specifically designed for the FCH to ensure the herd reaches the Intensive Management (IM) population *and harvest* objectives within a reasonable time-frame.
- ADF&G research shows 88% of the annual mortality in the Fortymile Herd was caused by predators and only 5% is “harvest” by hunters.
- The harvest quota will rise to 1,000 when the pre-calving population reaches 50,000.
- The wolf sterilization project (1997-2001) is not producing a long term increase of the FCH.

HERD POPULATION GROWTH

Estimates of the size of the FCH in the 1920s were within 350,000-568,000 animals and the herd’s range encompassed some 85,000 square miles, extending from Whitehorse, Yukon, to the White Mountains north of Fairbanks, Alaska. Population estimates from around 1950 were 46,000–60,000. By the 1970’s the population declined to an estimated low of 5,000 animals. Since 1973, the herd has occupied only a small portion of its previous range. For example, the herd seldom crossed into Yukon in significant numbers during the 1970’s, 1980’s and 1990’s. Between 1974 and 1990 the herd grew slowly to about 23,000 caribou. The herd population remained at that level until 1995 due largely to low calf survival. In 1995 the FCH was estimated at 22,000 to 23,000 animals. An intensive private wolf trapping effort, nonlethal predator control, favorable weather conditions and reduced hunting pressure enabled the population to increase to 43,375 caribou by 2003 (Figure 1). The FCH has not increased numerically as envisioned in the previous Harvest Plan, which projected a FCH population of 57,000 or more by 2003, and 70,000 or more by 2005.

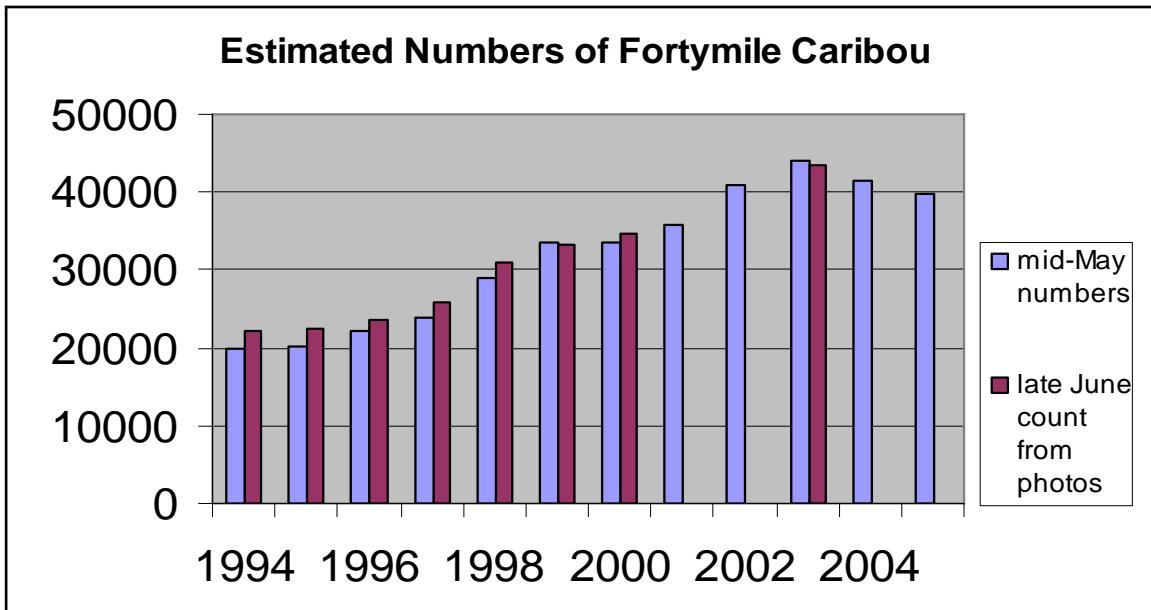


Figure 1: Estimated numbers of Fortymile Caribou 1994–2005

In 2001 the herd crossed the Steese Highway for the first time in about three decades. By November 2002 over 30,000 FCH animals were in Yukon, Canada and 5,000 were north of the Yukon River near Dawson. This was the first time since the early 1960s that Fortymile caribou crossed the Yukon River and a vast majority of the herd wintered in the Yukon.

In mid-May 2004, the FCH population decreased to an estimated 42,000 caribou. This decline was likely due largely to a very low percentage of births in the herd during 2003 (69% birthrate). This low percentage of calves likely occurred because of adverse summer weather in 2002 that caused poor body condition in cows and decreased the 2003 pregnancy rate.

The FCH population further declined to an estimated 39,700 caribou by early May 2005. This estimate was derived from the early May 2004 estimate, spring 2004 calving ground surveys, fall 2004 composition counts, and winter mortality rates estimated from the number of radiocollared caribou that died during the winter of 2004–2005. Elevated mortality of calves and adults during the winter of 2004 – 2005 was caused by increased predation during adverse weather.

HARVEST

The FCH historically provided much of the food for earlyday residents. From the late 1800s to World War I, it was subject to market hunting in both Alaska and Yukon. Before the Taylor Highway was constructed in the mid-1950s most hunting was concentrated along the Steese Highway and along the Yukon River above Dawson. During the 1960s,

hunting was concentrated along the Steese and Taylor highways in Alaska and the Top of the World Highway in Yukon. From the mid 1970s through the 1980s, FCH hunting regulations were designed to benefit local hunters and to prevent harvest from limiting herd growth. Bag limits, harvest quotas, and season openings were primarily used to meet these objectives. Hunting seasons were deliberately scheduled to avoid the period when road crossings were likely. Consequently, hunter concentration and harvest distribution shifted from highways to trail systems accessed from the Taylor and Steese highways and to areas accessed from small airstrips within the Fortymile and Charley river drainages.

Harvest was further restricted during the 1990s to ensure little impact on herd growth. Harvest regulations also became increasingly complex due to a change in Alaska's subsistence law that resulted in federal management of subsistence uses of the FCH on federal lands. During this period, many residents within the herd's range were unhappy with the ineffectiveness of dual federal and state management in administering the hunts and bringing about a herd increase.

During regulatory years 1996–1997 through 2000–2001 [regulatory year (RY) begins 1 July and ends 30 June; e.g. RY00 = 1 Jul 2000 through 30 Jun 2001], under the Fortymile Caribou Herd Management Plan, the harvest quota was 150 bulls. Since fall 1996, ADF&G and federal subsistence staff have managed the fall and winter Fortymile caribou hunts using a joint Federal Subsistence/State Registration permit. One permit is used and all hunt reports are returned to ADF&G. Federally-qualified subsistence users can begin hunting on federal public lands 15–30 days before other hunters.

The 2001–2006 Harvest Plan recommended a conservative annual harvest rate of about 2–3% to be divided between Alaska and Yukon. Sixty-five percent of the annual harvest was allocated to Alaska and 35% to Yukon. During this time, the T'rondëk Hwéch'in First Nations chose to forego their hunting rights and the Yukon Department of Environment opened no seasons when the FCH wintered in Canada, so that the Canadian harvest quota could be reallocated to herd growth.

Under the 2001–2006 Harvest Plan, if a growth rate of approximately 10% was not achieved in a particular year, the harvest objective for that hunting season was reduced to the level of the previous year. Because the Fortymile Caribou Herd grew at less than 10% per year and declined after 2003, the annual harvest quota remained at 850 per regulatory year except in FY02 when the quota was set before an accurate population estimate was made. The Alaska quota was further divided between fall-harvest (75%) and winter-harvest (25%) (Table 1). The fall quota was allocated between 3 areas based on historical take and herd migration. The Steese Highway-Central area was assigned 35% of the fall harvest objective; the Salcha-Goodpaster roadless area was assigned 15%; and the Tok-Taylor Highway area was assigned 50%. A different registration permit was used for each of these 3 areas, and areas were closed by emergency order if their quotas were filled. Registration permit boundaries were changed several times to alleviate the need for most hunters to obtain more than 1 permit to hunt a particular area and to accommodate changes in herd movements and range expansion.

Table 1. Alaska harvest quota allocation.

Area	Regulatory Year			
	2001-2002	2002-2003	2003-2004	2004-2005
Steese/Chena Hot Springs Area (35%)	230	250	230	230
Taylor Highway Area (50%)	320	355	320	320
Salcha-Goodpaster Roadless Area (15%)	90	105	90	90
Fall Hunt Total Quota	640	710	640	640
Steese/Chena Hot Springs Area	N/A ^a	95	125 (181) ^b	125 (181) ^b
Taylor Highway Area	N/A ^a	145	85 (121) ^b	85 (135) ^b
Winter Hunt Quota	210	240	210 (302)^b	210 (335)^b
Total Quota	850	950	850	850
ACTUAL HARVEST	693	864	800	840
NUMBER OF PERMITS ISSUED	4537	4156	5718	4212 ^c

^a The winter quota was not allocated by area until regulatory year 2002–2003.

^b This number is the remaining unfilled quota, which equals the winter quota allocation plus the unfilled portion of the fall quota.

^c The 3 fall registration permits were combined into one permit so hunters were not issued multiple permits to hunt Fortymile caribou in different places during the fall season.

Animals not harvested under the fall quota were reassigned to the winter hunt quota, except in RY01, when the unfilled portion of the fall quota was put toward herd growth. During RY02–RY05, 60% of the winter quota was allocated to the unit in which most of the herd was located at the time, along with Units 20D and 20B, while 40% was assigned to the unit where the minority of the herd ranged. During this timeframe, Unit 25C, along with 20B and 20D, received 60% of the winter harvest quota during 3 of the 4 years. This allocation of the winter quota allowed harvest across the winter range, and prevented the season in one area being closed because the entire winter quota had been taken in another area.

The 3 fall registration permits were combined in RY04. Harvest quotas for the different areas were retained and portions of the hunt area were closed by emergency order if harvest quotas were filled. This reduced confusion and eliminated the problem of multiple permits being issued to individual hunters who wanted to hunt Fortymile caribou in more than one area during the fall.

Concerns about increased hunting pressure on the moose population in Unit 20E, led to establishment of caribou/moose registration hunts in RY02 under which hunters were only able to possess a registration permit for one species at a time in most of Unit 20E. This was intended to prevent excessive incidental harvest of moose in Unit 20E by FCH hunters.

ADVISORY COMMITTEE COALITION MANAGEMENT RECOMMENDATIONS

GOALS AND OBJECTIVES

Goals

Primary goal: Promote continued growth of the FCH to meet intensive management population and harvest objectives and restore it to its historic range in both Alaska and Yukon.

Secondary goal: Increase the allowable harvest of the FCH when the herd grows.

Objectives

Promote and support management actions to obtain the following FCH Intensive Management Objectives established by the BOG:

- Population objective of 50,000–100,000
- Harvest objective of 1,000–15,000 caribou.

HARVEST MANAGEMENT

Harvest Rate

- Maintain a conservative harvest rate of approximately 2–3% of the herd population.

Allocation of Harvest Between Alaska and the Yukon Territory

- 65% of the harvest will be allocated to Alaska and 35% to Yukon. This effectively means that Alaska's harvest allocation is approximately 2% of the FCH population and 1% is allocated to the Yukon.

Alaska Harvest Quota

- Maintain an annual harvest quota of 850 caribou ($\pm 15\%$), with no more than 25% of the harvest being cows.
- When the FCH (pre-calving) population reaches 50,000 or more animals the harvest will be increased to 1,000 caribou.
- Through information and education programs, encourage hunters to take bull caribou rather than cows in order to keep cow harvest at less than or equal to 25% of the harvest.

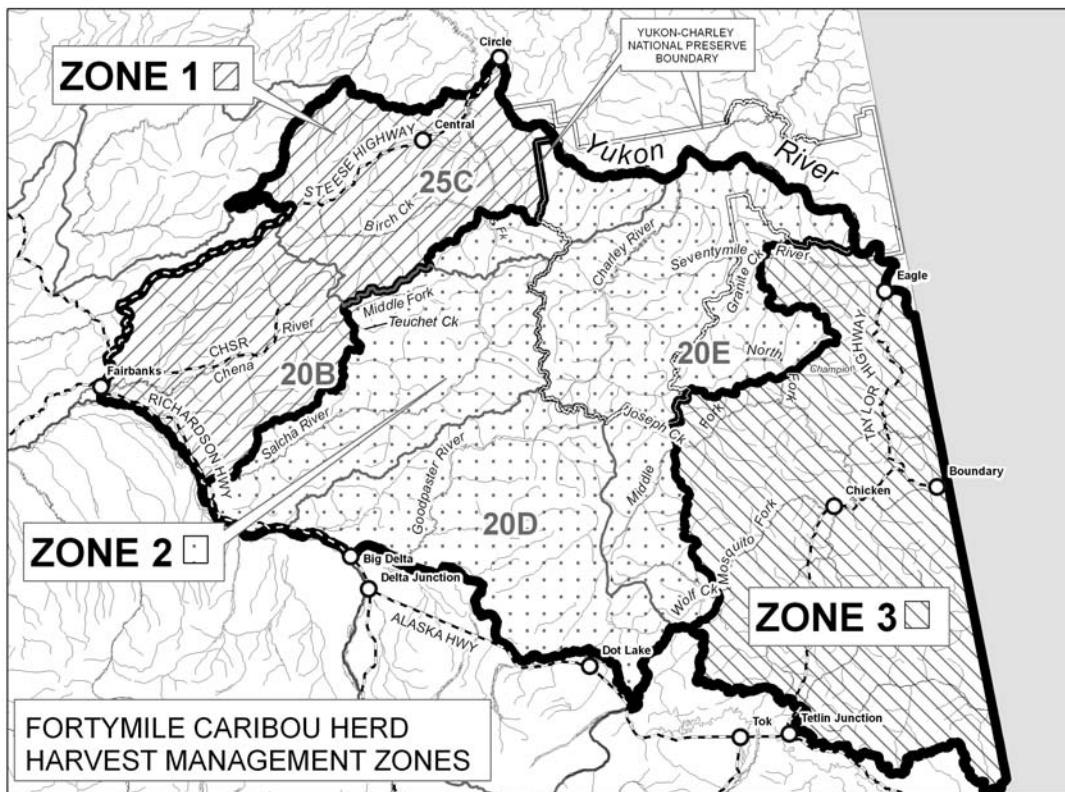
The intent is to keep the average FCH harvest within the 850 quota, but to allow up to a 15% variation in a single year. If the quota is either not reached or exceeded in one year,

harvest allocation may be adjusted the following year to compensate.

There is concern that if bull-only bag limits are applied, increased waste might result if hunters inadvertently take cows and do not salvage them. When hunters are allowed to choose between bulls and cows during the fall season, experience with the FCH and other herds has shown that 60% to 80% of hunters select for bulls. In addition, because of the difficulty in differentiating between cows with antlers and young bulls with antlers, cows are often illegally harvested during bull-only hunts. By allowing either-sex harvest, illegal harvest related to mistaken harvest of cows is eliminated and cows that might be wasted are utilized. In addition, the either-sex season allows hunters to select for cows when the meat quality of bulls is poor at the onset of the rut in late September. To protect against the over-harvest of cows, the cow harvest has been limited to 25% of the annual harvest. A portion of the cow quota is reserved for the winter season. Hunter education is intended as the main mechanism to keep cow harvest at 25% or less.

Harvest Management Zones

Fortymile caribou herd harvest should be managed so that hunters in different parts of the herd's range all have hunting opportunity. The following zones are intended to help manage and distribute FCH harvest (see map of zones below):



Zone 1: The road and trail accessible portion of the herd's range in the vicinity of the Steese Highway and Chena Hot Springs Road.

Zone 2: Generally, the portion of the herd's range that has few roads and trails and access is more difficult. This zone extends down to the Richardson Highway but very few, if any, caribou occur near the highway where they might be available for harvest.

Zone 3: The road and trail accessible portion of the herd's range in the vicinity of the Taylor Highway.

A written description of the areas included in Zone 2 is as follows:

Unit 20E

1. The Charley River drainage.
2. The Seventymile River drainage upstream from and including the Granite Creek drainage.
3. The North Fork of the Fortymile River drainage upstream from, but not including the Champion Creek drainage.
4. The Middle Fork of the Fortymile River upstream from and including the Joseph Creek drainage.
5. The Mosquito Fork of the Fortymile River drainage upstream from and including the Wolf Creek drainage.
6. The drainages within Unit 20E flowing into the Yukon River downstream from the confluence of the Seventy Mile River and Yukon River.

Unit 25C

That portion draining into the South Fork of Birch Creek and the portion within the Yukon-Charley Rivers National Preserve.

Unit 20B

That portion of the Middle Fork of the Chena River drainage upstream from and including the Teuchet Creek drainage and all of the Salcha River drainage.

Unit 20D

That portion north of the south bank of the Tanana River.

Allocation Among Different Seasons and Harvest Management Zones

- 75% of the Alaska harvest quota will be allocated to the fall hunt.
- Fall quota: Zone 1, the Steese Highway-Central and Chena Hot Springs Road area will be assigned 30%; Zone 2, the roadless less accessible areas in the range of the herd, will be assigned a minimum of 25% (additional harvest would be permitted from this zone if caribou were not accessible in either of the other zones, but not to exceed the fall quota); and; Zone 3, the Tok-Taylor Highway area will be assigned 45%.
- 25% of the harvest quota and any surplus from the fall quota will be allocated to the winter hunt.

- Winter quota: 60% will be allocated to the road accessible zone (either Zone 1 or Zone 3) where the majority of the herd is located immediately prior to the opening of the winter season. The remaining 40% of the quota will be assigned to the remaining road accessible Zone. Zone 2 will remain open until the winter quota is reached. Large numbers of caribou are not expected to be readily accessible in this Zone.
- This will allow harvest across the winter range, and prevent the season in one area from being closed because the entire winter quota is taken in another portion of the hunt area.

Hunt Management Recommendations

- ADF&G and federal subsistence program managers should cooperatively manage the fall and winter FCH hunts and continue using a single joint state/federal registration permit.

Participants in the July 7 meeting agreed it is important to maintain a single state/federal registration permit. A registration permit hunt provides important data necessary for timely management of hunts with harvest quotas. A short reporting period is required to manage harvest within the quotas. ADF&G will close all or parts of the state seasons when the harvest quotas for those areas are met. The ADF&G will also work with federal subsistence hunt managers to seek closure of federal seasons when harvest quotas are met, if qualified federal subsistence users have had sufficient opportunity to harvest caribou.

Because of high hunting pressure and low moose numbers in Unit 20E, hunters should not be allowed to possess a Fortymile Caribou registration permit (RC860) and a Unit 20E moose registration permit (RM865) at the same time. Hunters may harvest both species, but should not possess both permits at the same time. Traditionally, caribou hunters and moose hunters have hunted at different times in different areas. This recommended restriction is intended to allow hunters maximum opportunity to hunt their intended quarry without further restricting the moose season.

- In the future, if the FCH reaches a higher population, management of the hunt under a general harvest ticket, instead of a registration permit, should be considered.

Seasons and Bag Limits

The hunting season for the Fortymile caribou herd should be split between a fall hunt and a winter hunt. The split season facilitates hunting during the traditional fall season and allows some communities to take advantage of the proximity of the caribou during the winter. This plan recommends hunting from August 10 to September 30 (fall season) and from December 1 to February 28 (winter season). The federal subsistence winter season will open a month earlier than the state winter season.

- ADF&G should have the authority to announce a 1- to 3-day season for resident

hunters to harvest caribou on state managed lands in the American Summit area near Eagle between October 20 and November 30.

To offer fall hunting opportunity in the Eagle area, this plan recommends that ADF&G have the authority to announce a 1- to 3-day season for resident hunters to harvest caribou on state managed lands in the American Summit area between October 20 and November 30. Permits will only be available in Eagle. This season will be opened if: (1) there has been insufficient local opportunity in September to harvest caribou, and (2) Fortymile caribou are present in the area. This hunt will be conducted as a registration permit hunt and every effort will be made to maintain the harvest at no more than 30 caribou. The animals harvested during this hunt will be counted toward caribou harvested under the winter quota for the Tok-Taylor Highway area. This hunt is intended to accommodate residents of Eagle but would be open to all Alaska residents. If excessive harvest occurs or other problems develop with this hunt, it should be permanently suspended.

Historically, nonresident hunters have selected for large bulls and were not allowed to hunt during the winter season when it may be more difficult to distinguish bulls from cows. Restricting nonresident hunters to taking bulls only should not significantly increase the incidence of cows shot illegally. In addition, the winter hunt is important for meeting the subsistence needs of Alaska residents. Based on this hunt history and the importance of providing for Alaska resident subsistence uses, nonresidents should not be allowed to participate in the winter hunt, at least at the current FCH population level.

- The bag limit for all Fortymile Caribou Herd hunts should remain 1 caribou per regulatory year for residents and 1 bull per regulatory year for nonresident hunters until the population is demonstrated to be more than 100,000 animals, at which time changes in bag limits should be considered.
- Nonresident hunters should be allowed to participate in the fall Fortymile caribou hunt with a bag limit of one bull but there should be no nonresident seasons during the winter hunts.

Hunting methods and access

Access to the Fortymile herd in off-road areas is important to hunters and non-hunters alike. The herd will be monitored throughout the year, and information will be available to the public regarding herd distribution and movements so that conflicts between hunters and non-consumptive users will be minimized.

Some non-hunting road travelers are upset when hunters leave animal parts and viscera either in the roadside ditch or in plain view of the road. Hunters will be required under conditions of the registration permit to move viscera out of view of maintained roads. When large numbers of caribou are crossing major roads, such as the Taylor or Steese Highways, special hunt management provisions are needed to avoid the possibility of excessive harvest and to minimize public safety concerns. Because a narrow no-hunting corridor along a road (e.g., one mile either side of a highway) can be difficult to enforce, this is not the preferred method to define closed areas.

- ADF&G should manage situations where large numbers of caribou are crossing roads by enacting temporary hunting closures in clearly specified areas. Preferred methods are to temporarily close a specific drainage or other easily-delineated broader area, make such an area walk-in only, or delay a hunt opening. Hunters who are disabled and qualify for special licensing will be exempt from such closures along the Taylor and Steese highways.

Information and Education

ADF&G should conduct public information and education programs regarding this Harvest Plan. Hunter information specific to FCH harvest will be included on or with the registration permit. This information might include descriptions of cow and bull caribou, examples of removing viscera from view, harvest reporting requirements, signs or markers used to delineate the hunting area or closures, access routes and access restrictions. Additional educational material should also be provided to help hunters select for bulls when meat quality of bulls is good. Harvest reports will suffice to accurately monitor harvest quota allocation by area and season.

Harvest Management in the Yukon Territory

The specifics of Yukon harvest will be developed by the Yukon Fish and Wildlife Management Board, the Yukon Department of Environment and Yukon First Nations. It is unlikely that Yukon will begin to harvest a significant number of Fortymile caribou until the herd grows much larger and begins to regularly cross into Canada. Yukon residents believe that the herd numbered about 60,000 when Fortymile caribou last entered Yukon in numbers high enough for hunting. Any caribou not harvested by Yukon hunters will not be re-allocated to the Alaska harvest. If the number of caribou harvested does not reach the objective in a given year, the surplus will be used to promote herd growth.

Wolf Predator Control Project

A lethal wolf control program specifically designed to achieve the Intensive Management population and harvest objectives for the FCH was recommended as part of this plan and a wolf predation control program was authorized by the BOG at their March 2006 meeting. The program is being conducted by private citizens, similar to the other on-going wolf control programs in Alaska. The Wolf Predation Control Program previously in place for increasing moose numbers in Units 12 and 20E was expanded to include portions of the FCH range with little increase in the resources needed by ADF&G for program administration.

Grizzly Bear Management Project

Grizzly bear predation on caribou calves is a significant factor in reducing calf survival and herd growth. The Unit 20E Brown Bear Predation Control Area adopted by the BOG in May 2006 as part of the Upper Yukon/Tanana Predation Control Implementation Plan is primarily designed to benefit moose but should also benefit the FCH. In the Upper Yukon/Tanana Predation Control Area the BOG authorized the sale of black bear hides. It

is also legal to sell the hides of brown bears taken in the Unit 20E Brown Bear Predation Control Area. Additional actions which would encourage bear harvest should be considered by the BOG. Additional bear harvest will provide for additional herd growth and achievement of intensive management harvest and population objectives.