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Division of Wildlife Conservation

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FURBEARERS

Mary V. Hicks, Editor

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DEPARTMENT OF FISH AND GAME
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Project Title: **Southeast Furbearer Population Management**

Project Location: Subunit 1A (5,300 mi^2)
Ketchikan area including the mainland draining into Behm and Portland Canals

Unit 2 (3,600 mi^2)
Prince of Wales Island and adjacent islands south of Sumner Strait and west of Kashevarof Passage and Clarence Strait

Project Objectives and Activities:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal beaver, lynx, marten, otter, and wolverine pelts as they are presented for sealing.

3. Contact reliable observers to obtain general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: Although information is not yet available from our trapper survey, anecdotal information from hunters and trappers suggests that furbearers have remained stable in both Subunit 1A and Unit 2. Marten harvests were among the highest ever reported for Unit 2, and otter harvests were among historical highs in Subunit 1A and Unit 2.

Progress Meeting Project Objectives: The following number of furbearers were harvested from Subunit 1A and Unit 2 during this report period:

Species	Subunit 1A	Unit 2
Beaver	18	145
Marten	143	1,038
Otter	128	233
Wolverine	5	NA

We also received anecdotal information from hunters and trappers. We will obtain information about furbearers through our annual mail-out trapper survey.

Project Location: Subunit 1B (3,000 mi^2)
Southeast Mainland from Cape Fanshaw to Lemesurier Point

Unit 3 (3,000 mi^2)
All islands west of Subunit 1B, north of Unit 2, south of the centerline of Frederick Sound, and east of the centerline of Chatham Strait

Project Objectives and Activities:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal beaver, lynx, marten, otter, and wolverine pelts as they are presented for sealing.

3. Contact reliable observers to receive general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: During the sealing process we gathered anecdotal information from trappers. The 1994/95 trapper questionnaires were mailed to area trappers; the data will be compiled when questionnaires are returned.

Progress Meeting Project Objectives: The following number of furbearers were harvested from Subunit 1B and Unit 3 during this report period:

Species	Subunit 1B	Unit 3
Beaver	1	25
Marten	56	80
Otter	23	48
Wolverine	7	1

Project Location: Subunit 1C (7,600 mi^2)
Southeast mainland and the islands of Lynn Canal and Stephens Passage between Cape Fanshaw and the latitude of Eldred Rock, including Sullivan Island and the drainages of Berners Bay

Project Objectives and Activities:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal beaver, lynx, marten, otter, and wolverine pelts as they are presented for sealing.

3. Contact reliable observers to receive general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: We collected fur harvest data through the mandatory sealing process and used a trapper questionnaire to gain additional information regarding target species abundance, prey abundance, and trapping patterns and conditions.

Progress Meeting Project Objectives: The following number of furbearers were harvested from Subunit 1C during this report period:

Species	Subunit 1C
Beaver	4
Marten	118
Otter	24
Wolverine	10

Subunit 1C furbearer populations seem healthy. Lynx and beaver harvest decreased, and marten and otter harvest increased. Lynx are present when prey levels are low in Canada; the decreased lynx take is probably reflective of improving conditions in Canada. Other changes in the harvest are probably due to changing trapping effort and not population levels. Through the use of trapper questionnaires, we will continue to examine fluctuations in fur harvest in future years.

Project Location: Subunit 1D (2,700 mi^2)
Southeast mainland north of the latitude of Eldred Rock, excluding Sullivan Island and the drainages of Berners Bay

Project Objectives and Activities:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal beaver, lynx, marten, otter, and wolverine pelts as they are presented for sealing.

3. Contact reliable observers for general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: We collected fur harvest data through the mandatory sealing process. A trapper questionnaire was used to gain additional information regarding target species abundance, prey abundance, trapping conditions, and trapping patterns.

Progress Meeting Project Objectives: The following number of furbearers were harvested from Subunit 1D during this report period:

Species	Subunit 1D
Marten	120
Otter	3
Wolverine	3

Furbearer populations within Unit 1D are consistent with historic levels, although the higher than average marten harvest indicates that species population density has increased. The absence of lynx in the harvest is probably reflective of improving prey populations in Canada.

Project Location: Unit 4 (5,800 mi^2)
Admiralty, Baranof, Chichagof, and adjacent islands

Project Objectives and Activities:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal beaver, lynx, marten, otter, and wolverine pelts as they are presented for sealing.

3. Contact reliable observers for general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: Marten, otter, and beaver were sealed within 30 days of harvest. We examined furs at sealing and determined sex; measurements were taken. Trappers were contacted on northeastern Chichagof Island for opinions on declining marten harvests.

Progress Meeting Project Objectives: The following number of furbearers were harvested from Unit 4 during this report period:

Species	Unit 4
Beaver	8
Marten	241
Otter	83

The harvest may not reflect population levels. Marten harvests continued to decline across the unit because of low populations. There is no indication that trapping has depressed furbearer populations in the unit.

Project Location: Unit 5 (5,800 mi^2)
Cape Fairweather to Icy Bay, eastern gulf coast

Project Objectives and Activities:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal beaver, lynx, marten, otter, and wolverine pelts as they are presented for sealing.

3. Contact reliable observers for general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: Staff sealed furs in Yakutat. Harvest was analyzed from furbearer sealing certificates.

Progress Meeting Project Objectives: The following number of furbearers were harvested from Unit 5 during this report period:

Species	Unit 5
Beaver	0
Lynx	5
Marten	289
Otter	4
Wolverine	9

Residents of Yakutat and nonlocals contributed anecdotal information concerning sighting of furbearers. The harvest of martens and wolverines was greater than the previous year, the result of increased effort by one trapper rather than a population increase. It is doubtful this high level of harvest will continue.

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	$17.1	$3.6	$20.7
Actual	$17.1	$3.6	$20.7
Difference	0	0	0

Submitted by:

Bruce Dinneford
Management Coordinator

Project Title: **Southcentral Alaska Furbearer Management**

Project Location: Unit 6 (10,150 mi^2)
Prince William Sound and north Gulf Coast

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period: Appointed sealers and ADF&G staff sealed 129 pelts (39 beavers, 71 otters, and 19 wolverines). Trapper interest was minimal because of low pelt prices. We mailed 52 questionnaires to trappers requesting information on trapping activity and furbearer abundance, and we received 15 responses. Results will be available in fall 1995.

Progress Meeting Objectives: Population objectives have not been established for furbearer species. Progress establishing objectives was limited by insufficient funding and a lack of efficient methods to estimate populations.

Project Location: Units 7 and 15 (8,400 mi^2)
Kenai Peninsula

Project Objectives: Develop measurable objectives for all furbearer species by 1996.

Work Accomplished During the Project Segment Period: Appointed sealers and ADF&G staff sealed 237 pelts (110 marten, 87 beavers, 14 land otters, 22 wolverines and 4 Lynx) during the reporting period.

Lynx hunting and trapping seasons have been closed in Subunit 15A since 1983/84, and in the remainder of the Kenai since 1987/88, due to low numbers of animals. One lynx was reported trapped as a nontarget species, one was accidentally killed by U.S. Fish and Wildlife Service during their lynx study, and two were shot to defend small livestock. All reported take occurred in Subunit 15A.

While wolverine and lynx harvests remained stable, marten, beaver and land otter harvests varied greatly in 1994/95 compared to the previous year. The harvest of marten increased 367 percent (33 to 110), beaver declined 50 percent (173 to 87), and land otter declined 42 percent (24 to 14). The increase in marten harvest was attributed to the efforts of one new trapper to the area, catching nearly half of the harvest. Harvest levels and catch per trapper will be monitored in the future to prevent an overharvest. The harvest comprised 67 percent males.

The decline in harvest of beaver and land otter was probably due to the high accumulation of snow last winter. Deep snow impedes travel of trappers and covers streams, making trapping

of aquatic furbearers difficult. No indication of a population decline was evident from trapper questionnaires.

Mink, weasel, muskrat, red fox, and coyote are also harvested on the Kenai; however, sealing is not required for this species. Catch reports from trapper questionnaires indicate harvest of these furbearers was comparable to that of past years.

Progress Meeting Objectives: Furbearer populations on the Kenai provide benefits to a diverse group of resource users including both nonconsumptive and consumptive interests. However, due to low funding levels and lack of staff, objectives for furbearer management are not currently being achieved. Lynx and beaver censuses have been conducted in small study areas and will possibly be extended to estimate densities on a subunit level in the future.

The current monitoring of harvests from sealing and reports from trappers indicates populations are stable and all furbearers except lynx are found in harvestable numbers. The lynx population declined during the late 1980s and is increasing over large enough areas to open a season for 1996-97. No change in season or bag limit is recommended for 1995-96.

Project Location: Unit 8 (8,750 mi^2)
Kodiak Archipelago

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period: Nineteen trappers submitted pelts for sealing. Fourteen trappers harvested otters, and 8 trappers harvested beavers. Eighty-nine otters (32 males, 33 females, 24 undetermined sex) and 29 beavers were sealed. Highest individual catches were 16 beavers and 33 otters. The average catch was 6.4 otters per trapper and 3.6 beavers per trapper. We mailed trapper questionnaires to 31 individuals who had recently trapped in Unit 8. Twelve (39%) questionnaires were returned. Of the 8 respondents that reported trapping in Unit 8, 7 reported their harvest of fur. Respondents harvested 81 fox, 60 otter, 30 marten, 23 weasel, 21 beaver, and 7 muskrat.

Progress Meeting Objectives: Furbearer populations seemed high, but we did not assess population trend. A slight decline in trapping effort and harvest occurred in 1994-95. Trapping has little effect on furbearer populations at current levels. With the current low harvest, developing management objectives for furbearers is not a high priority.

Project Location: Units 9 and 10 (45,500 mi^2)
Alaska Peninsula, Aleutian, and Pribilof Islands

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period: During this report period we did not conduct surveys. We sent questionnaires to a select group of trappers, indirectly estimating furbearer population trends and relative abundance. Active trappers returned only 5 questionnaires. It is difficult to make inferences about population status from such a limited sample, but trappers generally reported most species were relatively stable. Snow and weather conditions and low fur prices were not conducive to productive trapping.

We derived furbearer harvest information from furbearer sealing certificates. The preliminary harvest for 1994-95 in Unit 9 from sealing certificates was as follows: beavers-166; otters-68; lynx-45; and wolverines-66. No furbearers were sealed from Unit 10. Beaver harvest was down for the third year; lynx harvest was down slightly; and otter and wolverine harvests were slightly higher.

Progress Meeting Objectives: The lack of efficient methods to estimate and directly monitor populations, compounded by unreliable snow conditions, has hampered progress developing measurable population objectives for furbearers in Units 9 and 10. Research on several species continues in other areas, but unless budgets increase, it is unlikely efforts will be extended on the Alaska Peninsula.

Currently the trapper questionnaire, opportunistic observations, and sealing requirements are adequate for management purposes as long as trapping effort remains relatively low. If fur prices and other factors lead to an increase in harvests, more intensive management may be required.

Project Location: Units 11 and 13 (38,300 mi^2)
Wrangell Mountains and Nelchina Basin

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period: Trapper questionnaires have been used for 8 years to determine trapping pressure, harvests, and furbearer abundance. This year we sent questionnaires to 130 Unit 11 and 13 trappers, and 74 (57%) responded. Of those responding, 25 (34%) did not trap during the 1994-95 season. Trappers responding to the questionnaire reported an average of 18 years experience in Alaska. Most trappers averaged between 25 and 100 sets along traplines averaging 46 miles and used either highway vehicles or snowmachines as transportation. Unit 11 and 13 trappers reported red

fox numbers were about the same as last year. Lynx numbers were reported to be lower than in the previous year. Numbers of marten and other furbearers were similar to last year.

We conducted aerial transects to monitor lynx abundance and population trends during February 1995. The 1995 track count was down 33% from the numbers observed during the 1993 survey and 41% from the 1992 survey, the end of the last cyclic high for lynx in Units 11 and 13.

During the 1994-95, 37 wolverines (16 males, 20 females, and 1 sex unknown) were sealed in Unit 13 by 24 different trappers. In Unit 11, 6 trappers sealed 11 wolverines (10 males, 1 female). There were 78 lynx pelts sealed by 20 trappers from Unit 13, while 6 trappers sealed 18 lynx taken in Unit 11. This is the fifth year lynx trapping occurred in these units after a 3-year closed season. Twenty-five trappers sealed 61 otters (34 males, 23 females, and 4 sex undetermined) in Unit 13 during 1994-95. Three otters were sealed from Unit 11. In Unit 13, 40 trappers sealed 274 beavers; 12 beavers were taken by 2 trappers in Unit 11. Seven trappers sealed 41 marten taken from Subunit 13E.

The 1994-95 trapper questionnaire asked, for the first time, the number of furbearers taken by the responding trapper on a subunit basis. Initially it was difficult to interpret this data because it was unknown what percent of the unitwide catch was represented by the trapper questionnaire response. The value in these data may be in following a trend from year to year in the number of each species taken. The immediate value, however, was that it gives a minimum harvest estimate for important species that are not sealed, such as marten and red fox. In Unit 13 during 1994-95 individuals responding to the trapper questionnaire reported taking 382 marten and 243 red fox. In Unit 11 the take was 314 marten and 23 red fox.

Sealing data for wolverine from both units indicate the number of wolverines trapped has stabilized at a lower harvest level over the past 5 years, following a period of decline. In Unit 13 between 1971 and 1982, the average annual take was 81 wolverines compared with 27 since 1985. In Unit 11 the average annual wolverine take before 1985 was 27 animals, but since has averaged only 10. Overall success rates for wolverine trappers remain low. All wolverines taken in Unit 11 were trapped or snared, while in Unit 13, 10 (27%) were ground shot with the rest trapped or snared.

The expected decline in the lynx harvest during the 1994-95 season in UNIT 13 did not occur as the preliminary harvest was almost as high as the previous year's take of 80 lynx. Also unexpected was the observation that kittens comprised 24% (n=19) of the harvest. The percentage of kittens in the Unit 13 harvest during 1993 was only 10%, suggesting the lynx cycle had already peaked, reproduction had dropped off and lynx numbers would decline. The high harvest was not attributed to increased trapping pressures as trappers reported expending less effort to take lynx because of continued low prices. In UNIT 11 the harvest was also as high as the previous year's catch but the percent kittens was, unlike UNIT 13, low (6%) as expected. Hares were reported scarce to nonexistent over much of Units 11 and

13. The last hare cycle of Units 11 and 13 did not result in very high hare numbers and lasted only 1 to 2 years.

Otter harvests in Unit 13 have fluctuated between a high of 68 in 1983 and a low of 5 in 1990. These fluctuations in the take are not caused by changes in the otter population but relate more to trapping effort. The 1994 preliminary harvest figure of 61 has tripled since 1992 and approaches the UNIT 13 record harvest of 68. The increase in the otter harvest over the last 2 years reflects increased effort by trappers because of increased demand and higher prices for otters. Otter harvests in Unit 11 have been low and vary little over the past 10 years compared to Unit 13.

This year the Unit 13 beaver harvest increased by 18%, the highest reported harvest since 1986 and 1987 when record harvests of 333 and 300 beaver were sealed. For the last 5 years, the beaver harvest has averaged 168. Beavers seemed abundant and harvest regulations have been liberalized in recent years to increase the harvest. In 1995 the BOG extended beaver season, starting with the 1995-96 season, to May 10. In Unit 11 beaver harvests have fluctuated in recent years between a high of 59 in 1985 to a low of 0 in 1994. In both units the catch per trapper has been fairly constant, but the number of beaver trappers fluctuated between years. Harvest chronology indicates most animals are taken either early in the trapping season or late spring.

Progress Meeting Project Objectives: Lynx are managed under a tracking harvest strategy that reduces or eliminates harvests during cyclic declines and lows. The theory behind this is if lynx are not taken during the cyclic low, more adults will be available for breeding during the upswing of the cycle and produce more kittens. The value of this strategy to trappers is they can take more lynx during the high because there are more lynx present.

Based on this management strategy, the current lynx harvest was expected to be much lower than actually observed. Analysis of lynx harvest locations indicates a number of animals were taken from an old burned area in 13B and 13C. Rabbit numbers in this area were higher than any other portion of the unit. I suspect lynx migrated into this burned area as evidenced by the capture of another tagged lynx from the Yukon. Rabbit numbers in this burn were high enough for successful reproduction. In the remainder of the unit, both the lynx harvest and reproduction dropped off as expected. Lynx track surveys in 1995 support harvest data indicating good lynx numbers on transects within the burned area in 13C and 13B but a 42% decline in the number of lynx tracks observed. Because we are in the third year of the lynx cycle decline, the harvest tracking strategy calls for a further reduction in season length. As a result, the upcoming 1995-96 season was shortened to 30 days. Increases in season length will not occur until the lynx cycle increases.

Low fur prices led to reduced trapping pressure for the fifth year in a row. Some species like red fox and mink received very little pressure compared with the early 1980s. Based on the numbers reported taken and the price received for pelts, marten are the most valuable furbearer to trappers in both units. Projected fur prices for upcoming season indicate little

price improvement. The threat of the European boycott has depressed the fur market. Trapping pressure for marten, mink, and coyote is not expected to increase appreciably, but high otter prices indicate continued higher trapping effort. I recommend no additional changes in season length or bag limits at this time.

Project Location: Units 14 and 16 (18,900 mi^2)
Upper Cook Inlet

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period:

Unit 14

During the 1994-95 trapping season, 160 beavers, 30 otters, 5 wolverines and 28 marten were sealed from Unit 14. In addition, 12 beavers were taken under nuisance beaver permits. Minimum harvest data for fur species for which sealing is not required were collected with a voluntary reporting form included with the annual trapper questionnaire. Responses indicated at least 14 coyotes, 40 mink, 221 muskrats, 7 red foxes, and 21 weasels were taken in Unit 14.

On 23 February we conducted aerial surveys to estimate the number of wolverines in Subunit 14C (excluding Anchorage). This area contained an estimated 17 wolverines (11-23 individuals at the 90% confidence level), a density of 1.2/100 mi^2.

Unit 16

During the 1994-95 trapping season, 66 beavers, 7 otters, 25 wolverines, and 97 marten were sealed from Unit 16. In addition, 11 beavers were taken under nuisance beaver permits. Minimum harvest data for fur species for which sealing is not required were collected with a voluntary reporting form included with the trapper questionnaire. Responses indicated at least 16 coyotes, 13 mink, 9 red foxes, 30 red squirrels, and 71 weasels were taken in Unit 16.

Units 14 and 16

Twenty-three trappers (49%) responded to the department's trapper questionnaire. Of these, 19 trapped during 1994-95. Most trappers commented that heavy snows during the beginning of the season hindered their activities. Heavy snows and personnel constraints prevented completion of track transects and muskrat pushup counts.

Minimum harvest objectives, based on long-term average harvests, were established in 1992 for the fur species for which sealing is required (except marten). Harvests surpassed objective

levels only for otters in Unit 14 and wolverines in Unit 16. Harvest was far below the desired level for beavers in Units 14 and 16, and nuisance beaver complaints were common. These harvest trends reflect current trends in market demand.

Progress Meeting Project Objectives: Developing direct, measurable furbearer population objectives is beyond the limit of our resources. However, track count transects can provide an index of population fluctuations, and these data could be correlated with harvest data. It may be possible, given several years' data, to develop indirect population objectives based on indices of furbearer abundance (e.g., tracks/km on transects). It will be important to continue track transects and also to gather data on track accumulation rates. However, because most trappers in this area trap for recreation, the investment necessary to collect data on actual population numbers and dynamics may not be warranted.

Project Location: Unit 17 (18,000 mi^2)
Northern Bristol Bay

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period:

Beaver: Compilation of beaver harvest data is not yet available for the 1994-95 trapping season. Preliminary data showed a harvest of 1014 beaver (17A-215; 17B-279; 17C-520). This was higher than the 5-year average of 930. Trappers again reported beaver were abundant throughout the unit. Higher anticipated prices and fair weather conditions were cited for the higher harvest. Because of unstable market conditions, beaver pelt prices plummeted just before Beaver Round-Up (early March), and the prices paid by local furbuyers averaged $23/pelt with a high of $40 for super blankets.

Coyote: No objective data were collected on coyote populations in the Unit. Incidental observations suggest coyotes were becoming more common and extending farther west. Pelt prices were up to $25.

Fox: Red fox populations stabilized throughout the unit. Prices paid for foxes were lower than in recent years, averaging $21.

Land Otter: Preliminary data indicated a harvest of 129 otter (57% male) this period (17A-23; 17B-23; 17C-83), higher than the 5-year average of 109. Trappers reported otter were abundant throughout the unit. Prices for otter pelts were down about 10% with an average of $38 and a high of $70.

Lynx: Trappers harvested 28 lynx (40% male) this reporting period (17A-0; 17B-9, 17C-19). Lynx numbers continued to increase throughout the unit, but the population was still relatively low. Prices for lynx pelts averaged $60/pelt with a high of $80.

Marten: We collected no data on the number of marten taken from the unit this period. Trappers reported stable marten numbers along the Nushagak, Mulchatna and Wood River drainages. Marten prices averaged $35/pelt.

Mink: We collected no data on the number of mink taken from the unit during this period. Trappers reported stable mink numbers throughout the unit. The highest price paid for a mink pelt was $10.

Muskrat: Muskrat populations seemed to remain at dangerously low levels. The only muskrats harvested were from the Snake, Weary and Igushik River drainages.

Wolverine: Preliminary data indicated a harvest of 50 wolverine during the 1994-95 season. This was above the 5-year average harvest of 32. Trappers reported wolverine populations remained stable throughout the unit. Prices were low again this year, with the highest price paid at $200.

Progress Meeting Objectives: We sealed pelts and informally interviewed trappers during sealing. We sent trapper questionnaires to selected local trappers during Beaver Roundup. Nine questionnaires were completed but are not analyzed. We did not administer surveys this reporting period.

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	28.9	5.5	34.4
Actual	28.9	5.1	34.0
Difference	0.0	0.4[a]	0.4

[a] Because of reduced effort and catch during the 1994-95 season, a fur sealing assistant was not needed at the Dillingham Beaver Round-Up festival.

Submitted by

Jeff Hughes
Survey-Inventory Coordinator

Project Title: **Region III Furbearer Population Management**

Project Location: Unit 12 and Subunit 20E

Project Objectives and Activities:

Unit 12:

1. Maintain accurate annual harvest records and indices of population trends based on sealing documents and trapper questionnaires.
   a. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
   b. Administer trapper questionnaire and interviews as a basis for determining the status of various furbearer populations.

2. *Lynx*: During the declining phase, the cyclic low, and during the initial recovery, seasons will be eliminated or reduced to less than 6 weeks and the allowable take may be limited. During the peak population years to 1 year following the peak, seasons will run from 1 November to 28 February with no bag limit.
   a. Conduct annual lynx and hare track count surveys to determine population trends.
   b. Collect lynx carcasses from trappers to determine the sex and age of the harvested population and to estimate population reproductive performance.

3. *Wolverine*: Manage wolverine harvest based on wolverine population size and trend and on trapping intensity.
   a. Obtain a wolverine population estimate in southern Unit 12 and western Unit 20E by 1997.
   b. Maintain a current map of active traplines in Unit 12 and Unit 20E.

Unit 20E:

1. Maintain accurate annual harvest records and indices of population trends based on sealing documents and trapper questionnaires.
   a. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
   b. Administer trapper questionnaire and interviews to determine the status of various furbearer populations.

2. *Lynx*: During the declining phase, the cyclic low, and during the initial recovery, seasons will be eliminated or reduced to less than 6 weeks, and the allowable take may be limited. During the peak population years to 1 year following the peak, seasons will run from 1 November to 28 February with no bag limit.

a. Conduct annual lynx and hare track count surveys to determine population trends.
b. Collect lynx carcasses from trappers to determine the sex and age of the harvested population and to estimate population reproductive performance.

3. *Wolverine*: Manage wolverine harvest based on wolverine population size and trend and on trapping intensity.
   a. Obtain a wolverine population estimate in southern Unit 12 and western Unit 20E by 1997.
   b. Maintain a current map of active traplines in Unit 12 and Unit 20E.

Work Accomplished During the Project Segment Period:

Unit 12: Sealing certificates received through 15 June 1995 indicated the FY95 Unit 12 furbearer harvest included: 6 land otters, 26 beavers, 21 wolverines, and 88 lynx. Kitten lynx composed 13.6% of the harvest, exceeding levels found in FY93 (2.2%) and FY94 (1.7%). The overall FY95 furbearer harvest was similar to last year except for lynx which declined by 27%.

Results from the trapper questionnaire were not available for this report, but discussions with local trappers indicated beavers, muskrats, mink and ermine were common in Unit 12 during FY95, and snowshoe hares began increasing after 3 years of very low levels, especially in the western portion of the unit.. Microtines were scarce to common. During FY95, the lynx population was low and declining except in the northwestern portion of the unit. Most of the lynx harvest occurred in the western portion of the unit, and all of the kittens came from that area. In response to the low and, in most areas, declining lynx population, the lynx season will be shortened and will run between 15 December and 15 January 1995-96. The marten population increased slightly but still was not common. Red fox populations have declined since FY93 and are currently at low levels. Wolverines were uncommon and stable, except in the mountainous country in southern Unit 12. In that area, wolverines were more common. Area trappers do not select for wolverines, but harvest is probably high enough to limit range expansion or population growth in most of the unit. Low market prices continue to negatively affect trapper effort for most furbearer species.

Track surveys in Unit 12 indicated trapping was limiting the lynx population but may be benefiting the hare population. We found lower numbers of lynx and fewer concentration areas compared with an area surveyed in Unit 20A but found a wider distribution of hares. I believe by shortening the season next year, the lynx population will be able to respond to the increasing hare population and experience a lower adult mortality and higher kitten survival.

Unit 20E: The following furbearers were sealed during FY95: 1 land otter, 0 beavers, 7 wolverines, and 23 lynx. The wolverine and otter harvests were comparable to past years, but beaver harvest declined from an annual harvest of 10 and lynx harvest declined by 47%. The

percentage of kitten in the harvest was 13, exceeding levels during FY94 (2.3%) and FY93 (4.5%). Most of the kitten harvest occurred in the Mosquito Flats area.

Based on local trappers, track surveys, and observations by department personnel, the marten population continues to increase, but it is still not common unitwide: microtine populations, especially red-backed voles, were increasing; the red fox population declined substantially; the wolverine population was low but stable; and the lynx population declined substantially during FY95 in Unit 20E. The lynx population was stable and possibly slowly increasing in the few areas supporting snowshoe hares or high densities of red squirrels. Overall, the lynx population is expected to remain low during FY96. In response, the lynx trapping season will be shortened next year and will run between 15 December and 15 January.

Progress Meeting Project Objectives: We maintained accurate annual harvest records for the 4 species sealed. Data from lynx carcass collections, trapper questionnaires, and field observations by department personnel, hunters, and trappers provided adequate information about furbearer population status and trend; however, we need to conduct a wolverine census in both units. To monitor trapper effort, distribution, and probable effects on the furbearer populations, we mapped the active traplines in Unit 12 and Unit 20E, recorded fur prices, and interviewed a sample of trappers on trapping intensity.

Project Location: Unit 19 and Subunits 21A and 21E

Project Objectives and Activities:

1. Annually determine current status and population trends for each furbearer species and their primary prey species, assess trapper effort and distribution, and collect estimates of harvest for all furbearer species.
   a. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
   b. Conduct trapper questionnaire and interviews as a basis for determining the status of various furbearer populations.

Beaver:

1. Manage the various subpopulations to maintain a mean pelt size >50 inches and <25% kits in the annual harvest.
2. Manage the population to maintain a mean density of not less than 1 active colony per 3.2 km of suitable waterway, as determined through periodic fall cache surveys.

Marten:

1. Collect accurate estimates of annual harvests through comparisons of Fur Acquisition Reports, Fur Export Reports, and trapper questionnaires.

2. Manage the population to maintain >50% males in the annual harvest and a ratio of young:adult females of not less than 2:1 in the annual harvest.

Lynx, River Otter, and Wolverine:

1. Maintain accurate annual harvest records based on sealing documents.
2. Manage the wolverine population to maintain >50% males in the annual harvest.

Work Accomplished During the Project Segment Period: Because all sealing documents for the 1994-95 season have not yet been processed, the following data are based on the 1993-94 trapping season. For Unit 19, 114 beavers, 12 coyotes, 90 red fox, 15 lynx, 1624 marten, 51 mink, 12 muskrats, 23 river otters, and 29 wolverines were harvested. According to Units 19, 21A, and 21E trapper questionnaires, coyotes were stable but still scarce, lynx were stable but scarce, red fox remained abundant, marten were very common and stable, muskrats were stable but scarce, mink were stable at low populations, beaver were abundant and stable, wolverines increased but were still scarce, and river otter were common at stable population levels.

We sent questionnaires to 102 trappers in the area to evaluate status and trends in populations as well as numbers harvested. Results have been tabulated for the 1994-95 season. Marten carcass collections were repeated. We sealed pelts throughout the trapping seasons and analyzed harvest of beaver, river otter, lynx and wolverine by evaluating sealing documents.

Furbearer harvests remained very low compared with pervious years, largely as a result of low fur prices. Five of the 34 respondents to the trapper survey indicated they did not trap. The primary reasons for not trapping were low fur prices and the chance to "let the line rest."

During the 1994-95 trapping season, 403 marten carcasses were collected and sex and age ratios were evaluated. The male:female ratio in the harvest was 1.55:1 and the young:adult female ratio was 4.00:1. As in the previous 3 years, both these indices indicate a healthy and growing marten population. With few participants, there is no threat of overharvest.

Progress Meeting Project Objectives: All harvest objectives for furbearers were met during FY95. Sealing of furbearer pelts was accomplished through the use of several village sealing agents, traveling furbuyers, or efforts of department personnel. Analyses of harvest and population trends will be completed for the 1994-95 season when all sealing certificates, acquisition, export, and trapper questionnaires are submitted.

Population assessment objectives were not met. Weather did not permit track count flights and beaver cache counts. However, other sources of information (i.e., trapper questionnaires, flights for other reasons) indicate healthy populations.

Project Location: Subunits 20A, 20B, 20C, 20F, and 25C

Project Objectives and Activities:

1. Maintain accurate records of furbearer harvest, pelt export, pelt acquisition, and population trends.
   a. Compile and summarize data on sealing certificates, fur export reports, fur acquisition reports, and trapper questionnaires.

2. Manage beaver in the lower Chena River portion of Unit 20B for an annual fall beaver colony density of <0.5 colonies/km of river and mitigate problems arising from beaver activities.
   a. Conduct annual fall beaver cache surveys in the lower Chena River and Badger Slough. Open a limited registration trapping season if densities are >0.5 colonies/km.
   b. Issue nuisance beaver permits to remove problem animals.
   c. Coordinate with Department of Transportation and Public Facilities (DOT&PF) to minimize dammed culverts and flooded roads.

3. Manage beaver in Units 20A, 20C, 20F, 25C and the remainder of 20B for an annual unit harvest that includes <20% kits when the harvest for that unit exceeds 50 beaver.
   a. Determine the proportion of harvested beaver that had pelts <52 inches (kits).

4. Manage lynx with a tracking harvest strategy whereby seasons are most liberal when lynx are abundant and most conservative when lynx are scarce.
   a. Estimate the annual sex and age of harvested lynx by examining carcasses from Units 20A and 20B.
   b. Determine whether or not lynx pelt measurements can be used to index the number of kittens in the harvest.

5. Maintain furbearer trapping seasons during times of peak pelt primeness.

6. Summarize data on the status of wolverines in the Fairbanks area.

Work Accomplished During the Project Segment Period: Preliminary sealing certificate data for 1994-95 indicate trappers harvested 816 beavers, 103 lynx, 22 otter, and 33 wolverines from the Fairbanks area. The unit harvest of these 4 species, respectively, was 85, 21, 4, and 14 in Unit 20A; 536, 45, 14, and 5 in Unit 20B; 168, 27, 4, and 7 in Unit 20C; 26, 3, 0, and 4 in Unit 20F; and 0, 7, 0, and 3 in Unit 25C.

In 1993 export and acquisition reports indicated trappers exported or sold to furbuyers 4509 furs from Unit 20, 62% of which were marten. This was an increase from 1992 when 3637 were exported or sold , 56% of which were marten.

Trapper questionnaire local area question responses were synthesized for 1993-94 season statewide report. The mailing list for 1994-95 was reviewed. In April 1994, 87 questionnaires were sent out, 25 responses were received as of this date, and a reminder letter is being sent to all nonreporting trappers.

A beaver cache survey was conducted 29 September 1994 along the Chena River and Badger Slough. The cache estimate was 0.6 caches per kilometer of the Chena River. Seven registration permit trappers killed 25 beavers during the 1 December-31 January season. No registration permits were issued for Badger Slough.

We issued 29 nuisance beaver permits which resulted in at least 51 beavers being taken during regulatory year 1994. Distinct problem areas seem to be the sloughs that flow through and around North Pole and many of the drainages that cross Chena Hot Springs Road.

Meetings between furbearer biologists at the Northern Fur Conference and with members of the Alaska Trappers Association were held during May 1995 to discuss the lynx tracking harvest strategy and possible season lengths and dates for the 1995-96 season. The season was shortened by 2 weeks to a 4-week season for 1995-96. We collected 37 lynx carcasses during the 1994 season, and we are planning to collect carcasses during the 1995 season. The carcass data are currently being analyzed and the results will be reported in the next management report.

Furbearer seasons are being maintained during the peak of pelt primeness.

Progress Meeting Project Objectives: We are meeting the objective of maintaining accurate fur harvest records.

In areas where high beaver densities result in human-beaver conflicts, the registration trapping season and nuisance permits have adequately controlled problems. We are not meeting our cache density objectives for the permit area on the Chena River. However, problems within the control area have been minimal. Along with educating the public on safeguarding property against beaver damage, we have been coordinating with the DOT/PF to combat problem areas where beavers are endangering road integrity.

Preliminary data for 1994 indicate we are meeting our objective of less than 20% kits in the beaver harvest in units with harvests over 50. Increasing beaver pelt prices could increase harvest, and we should continue to monitor percent kits.

The lynx tracking harvest strategy seems to be working well to adjust the lynx harvest in relationship to population cycles.

We are meeting our objective to maintain seasons during the peak of primeness, except for nuisance beavers.

Trappers indicate from questionnaires that in most areas wolverine numbers are stable. However, trappers in areas receiving increased pressure are noticing a reduction in wolverine sign. Wolverines exist at low enough densities that even moderate trapping pressure could affect localized wolverine numbers.

We recommend the following changes to the objectives:

- Change 2a: Conduct annual fall beaver cache surveys in the lower Chena River and Badger Slough. Open a limited registration trapping season if densities are >0.2 colonies/km.

- Add 4b: Develop and implement aerial track surveys in Units 20A and 20B to provide indices to trend in lynx and hare populations.

- Change 4c: Determine whether lynx pelt measurements can be used to index the number of kittens in the harvest.

- Add 4d: Develop maps of trapline distribution through interviews with successful trappers.

- Add 5: Manage wolverine harvests in Unit 20A based on estimates of sustainable yield derived from density estimates and modeling.

- Add 5a: During winter 1995-1996, complete aerial surveys to estimate density of wolverine in Unit 20A.

- Add 5b: Use the model of Gardner et al. (1993) to estimate sustainable wolverine harvests in 20A.

- Change 6: Maintain furbearer trapping seasons during periods of peak pelt primeness.

Project Location: Subunit 20D

Project Objectives and Activities:

1. Monitor furbearer population trends and annual harvest of furbearers using sealing documents, fur acquisition reports, fur export reports, trapper questionnaires, and trapper interviews.
   a. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
   b. Conduct trapper questionnaire and interviews as a basis for determining the status of various furbearer populations.

2. Monitor trends in abundance of furbearer prey species by establishing snowshoe hare and small mammal trend surveys.
   a. Conduct snowshoe hare track surveys and small mammal trapline surveys to monitor prey abundance.

3. Determine lynx reproductive status by purchasing and examining lynx carcasses and reproductive tracts as needed.

Work Accomplished During the Project Segment Period: Pelts were sealed for beaver, lynx, otter, and wolverine trapped in Unit 20D during the 1994-95 trapping season. Preliminary trapper harvest totaled 37 beavers, 34 lynx, 3 otter, and 12 wolverine.

Trapper questionnaires were mailed to trappers in Unit 20D. Responses were tabulated to quantify trapper responses to furbearer abundance and population trends.

No small mammal abundance data were collected in fall 1994 due to higher priority tasks in Unit 20D.

We purchased 8 lynx carcasses from trappers during this reporting period. Carcasses were necropsied and results are pending.

Progress Meeting Project Objectives: Management objectives were met this reporting period by sealing furs of beaver, lynx, otter, and wolverine and analyzing harvest patterns. Trapper questionnaires were mailed to trappers and results analyzed. No trends in prey abundance were monitored.

Project Location: Subunits 21B, 21C, and 21D

Project Objectives and Activities:

1. Manage furbearer populations to sustain furbearers at levels high enough to provide maximum consumptive and nonconsumptive use.
   a. Seal furs and analyze harvest patterns.
   b. Conduct trapper questionnaire and interviews to determine the status of various furbearer populations.

Work Accomplished During the Project Segment Period: Sealing certificates received in Galena through 2 June 1995 indicated harvests of furbearers from Units 21B, 21C, and 21D were 173 beavers, 7 lynx, 9 otters, and 14 wolverines. Harvest of beaver continue to be low and the wolverine catch was the lowest in many years. Lynx tracks after the trapping season indicated lynx were still fairly common, so the low catch is more indicative of a lack of effort rather than low lynx numbers.

Most unit trappers primarily set for marten and incidentally for lynx, otter, and wolverine. Low marten prices and poor snow conditions during part of the season directly influenced trapping effort. Beaver and otter continue to be abundant.

Progress Meeting Project Objectives: A variety of circumstances influence trapper effort and catch within this area. Fur prices, social activities, cultural backgrounds, and weather conditions all contribute to trappers' effort. These factors currently keep harvests low enough to meet the objectives.

Project Location: Unit 24

Project Objectives and Activities:

1. Manage furbearer populations to sustain furbearers at levels high enough to provide maximum consumptive and nonconsumptive use.
   a. Seal furs and analyze harvest patterns.
   b. Conduct trapper questionnaire and interviews to determine the status of various furbearer populations.

Work Accomplished During the Project Segment Period: During the report period, sealing certificates in Galena indicated a harvest of 8 otter, 30 wolverines, 34 lynx and 133 beavers. Lynx numbers were lower by 100 over last year, indicating the 10-year population peak has been reached and numbers are declining. Effort still remained high in the northern reaches of the unit. The extremely low harvest of beaver is due to very low effort in the southern part of the unit. The harvest is 95% lower than it was 10 years ago.

Most unit trappers set for lynx, otter, and wolverine incidentally to marten trapping. Low marten prices and poor snow conditions during part of the season directly influenced trapping effort. Beaver and otter continue to be abundant in the southern portion of the unit.

Progress Meeting Project Objectives: A variety of circumstances influence trapper effort and catch within the unit. Fur prices, social activities, cultural backgrounds and weather conditions all contribute to trappers'effort. These factors keep harvests low enough to meet the objectives.

Project Location: Subunits 25A, 25B, 25D, 26B, and 26C

Project Objectives and Activities:

1. Maintain accurate annual harvest records and indexes of population trends based on sealing documents and trapper questionnaires.

a. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
b. Conduct trapper questionnaire and interviews to determine the status of various furbearer populations.

2. Develop more specific population objectives for furbearers by 1995.

Work Accomplished During the Project Segment Period: Harvest data for sealed species including lynx, wolverine, beaver, and otter are being compiled and analyzed based on sealing forms. Final harvest figures are not available, but as in previous years, the harvest of sealed species was greatest in Unit 25. Fur prices have remained low for several years, and trapping effort has declined accordingly. The remaining trapping effort is focused primarily on marten and lynx. Snowshoe hare numbers are starting to increase, and lynx harvests are increasing. An extended flood in May 1992 on the flats around Fort Yukon decimated small mammal and furbearer populations over a large area and contributed to a reduced harvest of most species. Considerable effort was devoted to developing revised beaver trapping regulations in response to local interests in harvesting more beaver for food and in reducing beaver numbers on creeks where beaver dams are thought to be reducing migratory whitefish populations.

Progress Meeting Project Objectives: Harvests of all furbearer species sealed by ADF&G personnel were within population management objectives. Objectives involving maintaining accurate harvest records, sealing furs, and obtaining trapper observations on furbearer numbers are being met. Population objectives for furbearers are being developed. I suggest the following objectives in addition to existing objectives:

1. Cooperate with local residents and USFWS in investigating the relationship between beaver and local fish populations.

2. Test the feasibility of aerial track counts in monitoring lynx and hare population trends.

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	97.8	15.0	112.8
Actual	80.8	1.0	81.8
Difference	17.0	14.0	31.0

Submitted by:

Kenton P. Taylor
Management Coordinator

Project Title: **Western Alaska Furbearer Population Management**

Project Location: Unit 18 (42,000 mi^2)
Yukon-Kuskokwim Delta

Project Objectives and Activities:

1. Maintain furbearer population at existing levels in Unit 18.
   a. Estimate abundance and use of selected furbearers in Unit 18.
   b. Provide support to the fur sealing program.
2. Minimize adverse interactions between furbearers and the public.
3. Develop updated population management objectives in consultation with the public and other agencies.

Work Accomplished During the Project Segment Period: Public notices were sent out to all village post offices and fur sealers for the fifth year, informing hunters and trappers that all harvests of beaver, lynx. otter, wolves, and wolverines need to be sealed. Also, notices were sent explaining the use of fur export permits and the importance of reporting all furbearer harvests. All fur sealers were contacted about proper procedures for sealing pelts and filling out fur acquisition reports. Twenty-nine fur sealers were active in Unit 18 during the 1994-95 season, of which 2 were also licensed furbuyers. Many of the fur sealers along the coast were also ivory sealers for the FWS. One of the largest furbuyers in Alaska still operates out of Bethel.

Beaver dam and damage complaints were received from the city of Bethel and other villages throughout the Yukon-Kuskokwim Delta. Several villages asked about removing the beaver dams with the use of dynamite and were referred to Habitat Division in Anchorage.

Pelts were sealed at the Bethel office and in the villages on an opportunistic basis, usually incidental to public meetings and license vending. Pelts from other units were sealed as well. Fur sealing certificates were coded and filled out properly so harvests for different drainages could be evaluated.

Progress Meeting Project Objectives: We evaluated furbearer trends and abundance for each species. Abundance of all species of furbearers remained high, especially beaver, fox, marten, muskrat and otter. Some trappers reported lower abundance of mink, but this may have been caused by late freeze-up and lack of snow for travel to trapping areas. Trappers could not get to mink trapping areas until several weeks after the trapping season began. This may have lowered their harvests.

The preliminary harvest of furbearers in Unit 18 during the 1994-95 regulatory year is estimated at 2000 beaver, 2 coyotes, 300 foxes (red and white), 3 lynx, 150 marten, 4000 mink, 1000 muskrats, 400 otters, and 2 wolverine. These harvest records indicate very little interest in the sale of pelts except beaver, mink, and otter. Fur prices have been very

depressed since the 1989-90 trapping season; however, beaver, mink, and otter prices increased slightly during December 1994. Also fox prices were slightly higher but still lower than average. Warm weather in December and lack of ice prevented trappers from harvesting normal numbers of mink. The reported harvest decline in some furbearers was a result of low prices, rather than low abundance. Observations by trappers and staff indicate all furbearer species are abundant and continue to increase throughout the Yukon-Kuskokwim Delta.

Habitat Division responded to several villages, explaining that destroying beaver dams with dynamite was illegal because these dams were located on anadramous fish streams.

Compliance with fur sealing requirements has increased because of personal contacts by department staff and public notices posted in all the villages. Fur sealing in rural Alaska is still a problem.

An educational program developed two years ago through the Yukon/Kuskokwim Mink Festival held every December has developed into a year-round educational program in the schools and villages, promoting trapping, handling of furs, especially mink and fox. Trapper education through the Lower Kuskokwim School District Yupik life skills program provides students in grades 8 through 12 trapping and furbearer management techniques. The teachers use a notebook developed in cooperation with the department, FWS, the Cooperative Extension Service, and other volunteers to teach conservation of furbearers, general biology of furbearers, and promote trapping and use of furs throughout the Yukon-Kuskokwim Delta.

Project Location: Unit 22 (25,230 mi^2)
Seward Peninsula and that portion of the Nulato Hills draining west into Norton Sound.

Project Objectives and Activities:

1. Establish and maintain viable numbers of furbearers in Unit 22.
   a. Assess harvest, interview hunter/trappers, and seal all furs presented for sealing.
   b. Establish and maintain license vendors and sealers in all Unit 22 villages.
   c. Improve compliance with current sealing requirements through public communication and education.
   d. Conduct aerial beaver cache counts in selected areas of the unit to develop an index of relative abundance.

2. Minimize adverse interactions between furbearers and the public.

3. Develop updated population management objectives in consultation with the public and other agencies.

Work Accomplished During the Project Segment Period: Harvest data obtained from furbearer sealing records indicate the following:

Beaver: Four Unit 22 residents harvested 17 beaver. Ten were harvested from Unit 22B, 5 from Unit 22C, and 2 from Unit 22D. Harvest chronology data are as follows: November-2; December-5; March-5; and April-5. The following methods were used to take beaver: Shooting-2 animals, trapping-5 animals. Snowmachines were the predominant method of transportation.

Lynx: Two Unit residents, using a snowmachine for transportation, trapped 4 lynx (sex unknown) from Units 22A and 22B.

River Otter: Six Unit residents, using snowmachines for transportation, harvested 11 otters (3 males, 7 females, 1 of unknown sex). Eight were from Unit 22A, 2 from Unit 22C, and 1 from Unit 22D. Harvest chronology is as follows: September-1; November-1; January-8; and April-1.

Wolverine: Twelve wolverines (9 males, 3 females) were harvested by 11 hunter/trappers, all of whom were unit residents. The harvest summary by unit is: 22A-6 animals, 22B-5, 22C-1. Chronology of the harvest is: September-3 animals; December-1; February-1; March-6; and April-1. The reported method of take is: ground shooting-9 animals, trapping-3. Snowmachines were used for transportation by 10 hunter/trappers.

We continued to use the educational program developed several years ago to explain wildlife management concepts and regulations in the schools throughout Unit 22. We made several trips to villages to explain the need for regulations and harvest reporting, as well as to assist license vendors. We also distributed regulations, prepared public information releases, and supported license vendors and fur sealing agents in Unit 22.

Progress Meeting Project Objectives: We suspect considerable unreported harvest of some furbearers each year in Unit 22. Efforts to inform the public of the importance of wildlife conservation and the need for regulations are starting to show results in some communities; the number of individuals purchasing licenses has increased. We need additional contact with local residents, primarily within the villages, for more complete compliance with current regulations. Because of inclement weather, we did not conduct beaver cache surveys.

Project Location: Unit 23 (43,000 mi^2)
Kotzebue Sound and Western Brooks Range

Project Objectives:

1. Maintain furbearer populations capable of sustaining harvests at the 1983-84 to 1988-89 levels, recognizing that populations will fluctuate in response to environmental factors.
2. Collect sufficient data to develop one or more trend count areas for lynx by 1996.
3. Minimize adverse interactions between furbearers and the public.

Work Accomplished During the Project Segment Period: We collected information regarding the population status of beaver, lynx, river otters, and wolverines from fur sealing certificates, conversations with residents of the unit, and opportunistic observations of furbearers and their tracks during other wildlife surveys. We maintained furbearer sealing and furbuyer reporting programs for monitoring harvest.

Beaver: Increasing signs of beaver in the lower Noatak River drainage was reported. Residents of the Kobuk drainage report beaver populations at "medium" levels, and either stable or increasing in abundance. Several active lodges have been identified in the Squirrel River. Beaver population levels in the Selawik are still high, based on observations of beavers in marginal habitat. Residents of Selawik expressed concern about potential effects of beaver on whitefish habitat.

Lynx: Lynx population levels remained extremely low during 1994-1995. Single sets of tracks were again observed in the Noatak and Kobuk drainages by agency personnel and residents. The snowshoe hare population remained present in areas throughout the unit but at no higher levels than for the last 3 years. If hare populations increase, we anticipate a corresponding increase in lynx within the next few years. One lynx was sealed from the Buckland River and another was reported taken but not sealed in the upper Kobuk.

Mink and Marten: No information is available regarding mink populations or harvest. Presence of marten in the middle Kobuk and in the Igichuk Hills may represent a northern range extension for the species.

Red Fox: The limited information available on red fox indicates populations were stable or increasing in some areas. One case of rabies was confirmed in the spring of 1994. A red fox was found in a dog lot and tested positive for rabies.

River Otter: Based on observations during other wildlife surveys, river otters are increasing in the Noatak and Kobuk drainages. No river otters were sealed in 1994-95.

Wolverine: Based on opportunistic sightings by staff and residents, wolverine populations seem stable. During the 1994-1995 regulatory year, 6 hunters sealed 15 wolverines (10 males,

4 females, 1 sex unknown). Seven were shot and 8 trapped. No harvest was reported from the Noatak drainage, 53% of the reported harvest occurred in the lower Kobuk , 27% from the Selawik, 13 % from the Kukpuk, and 7 % from the Imnachuk. All but 1 of the hunters resided in Unit 23 and all used snowmachines for transportation. Due to noncompliance with sealing requirements, actual harvests are undoubtedly much higher than the number sealed.

Progress Meeting Project Objectives: The department continued to maintain open communication with area trappers to assess trapper effort and distribution. Current furbearer populations are capable of sustaining target harvest levels, with the exception of lynx. Lynx densities remained low. Observations of both hare and lynx tracks enabled staff to identify general areas suitable for trend counts as populations increase. Potential areas include the northern Seward Peninsula, Kobuk River, and Selawik River drainages. We discussed inconsistency between seasons and bag limits for hunting and trapping at various advisory committee meetings. The variations in season dates are not based on biological considerations regarding management of furbearers in Unit 23. The variations in season dates increases the complexity of regulations for those who both hunt and trap. Once again, we recommend adoption of the same season dates for hunting and trapping furbearers in Unit 23. Efforts to simplify the furbearer hunting and trapping regulations and sealing requirements and to explain the need for harvest information in wildlife management should remain an objective for 1995-96.

Project Location: Subunit 26A (53,000 mi^2)
Western North Slope

Project Objectives and Activities:

1. Maintain productive populations and allow harvest opportunities within sustained yield limits.
2. Minimize adverse interactions between furbearers and the public.
3. Develop updated population management objectives in consultation with the public and other agencies.

Work Accomplished During the Project Segment Period:

Arctic Fox: Arctic foxes were very abundant in Subunit 26A. Because hunters and trappers are not required to seal foxes, harvest data are not available. Low fur prices resulted in relatively few foxes being trapped.

Coyote: Coyotes are rare in Subunit 26A. No population or harvest data are available.

Lynx: Lynx population density is very low in Subunit 26A. No lynx were reported harvested in the unit.

Red Fox: No population data are available for red foxes in Subunit 26A. No red foxes were reported harvested.

River Otter: Although river otters are found in Subunit 26A, their densities are very low. No river otters were reported harvested during 1994-95.

Wolverine: In 1984 the department estimated a minimum population of 821 wolverines in Subunit 26A. We do not have a more recent estimate of population size. We observed 5 wolverines during 35 hours of moose census flights in Subunit 26A during 4-9 April 1994.

Sixteen wolverines from Subunit 26A were sealed during 1994-95. Twelve were ground shot, 2 were trapped, 1 was snared, and 1 taken by unknown methods. Snowmachines (10) were used for transportation, along with airplanes (4), skis (1), and 1 was unknown. Six wolverines were females and 10 were males. Four were taken during September, 3 in November, 2 during December, 1 in January, 3 during February, 2 in March, and 1 at an unknown time. We believe many more wolverines were harvested and not reported; however, reliable data for the unreported harvest are not available. Sixteen wolverines sealed is an increase over past years. Hunters and trappers reported seeing more wolverine than normal; harvest probably was larger than in past years.

Progress Meeting Project Objectives: It is difficult to determine whether current harvest levels are within sustained yield limits because little population and harvest information are available. Additional efforts are needed to assess the status of furbearer populations and monitor the harvest. Inventory of furbearer populations, other than wolves, remains a low priority in Subunit 26A compared to other species. The department is assisting the North Slope Borough in developing a harvest monitoring program in each North Slope village to provide better harvest information in the future.

Rabid furbearers, particularly arctic foxes, continue to be a problem around human settlements. We work with the North Slope Borough to educate people on dealing with rabid animals and having their pets immunized. Rabid arctic foxes are destroyed when they are reported near villages.

Segment Period Project Costs:

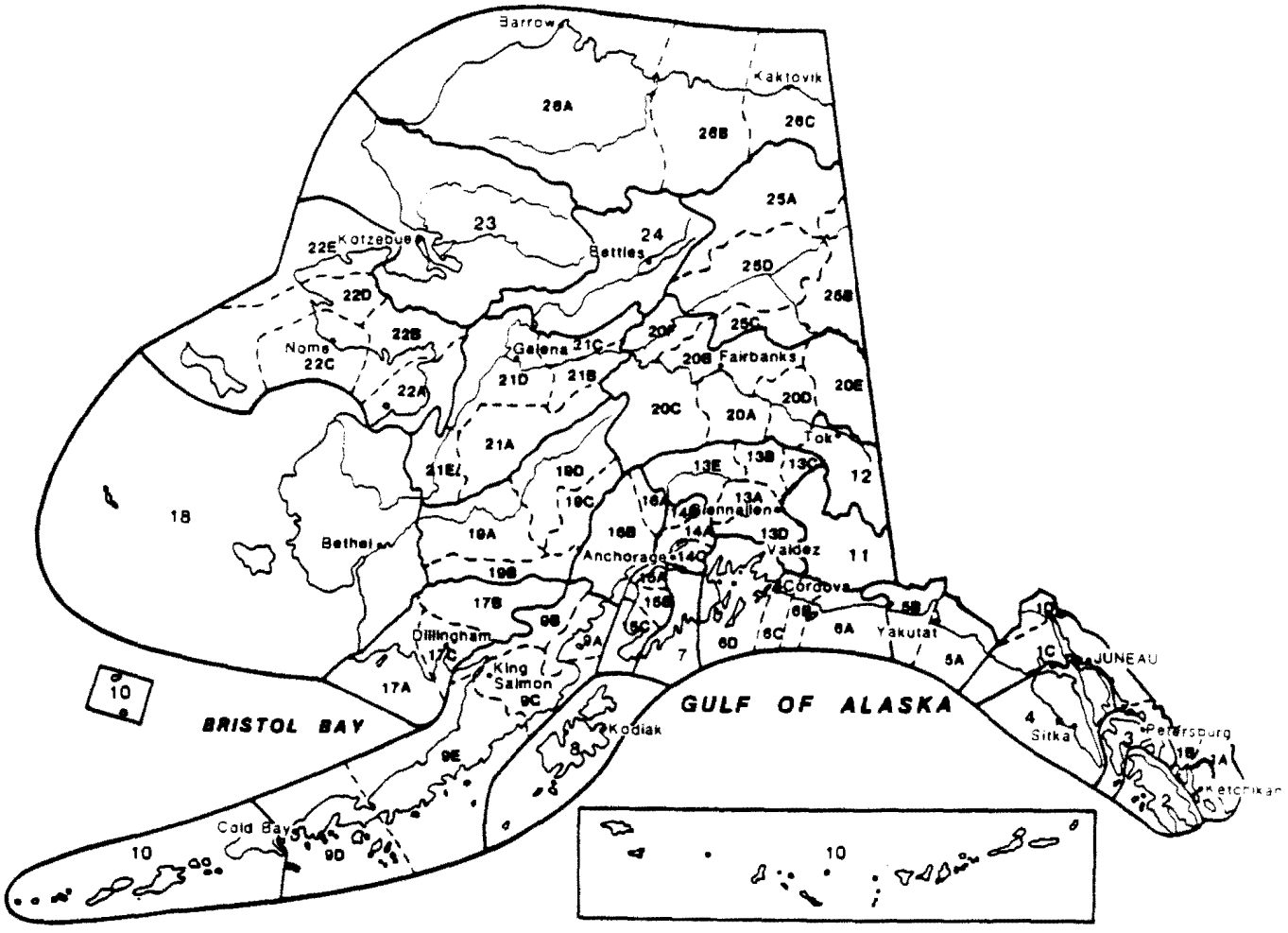
	Personnel	Operating	Total
Planned	21.0	10.4	31.4
Actual	21.0	2.0	23.0
Difference	0	8.4	8.4

Submitted by

Steve Machida
Survey-Inventory Coordinator

NOTES

Alaska's Game Management Units



The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manufacturer's excise tax collected from the sales of handguns, sporting rifles, shotguns, ammunition, and archery equipment. The Federal Aid program allots funds back to states through a formula based on each state's geographic area and number of paid hunting license holders. Alaska receives a maximum 5% of revenues collected each year. The Alaska Department of Fish and Game uses federal aid funds to help restore, conserve, and manage wild birds and mammals to benefit the public. These funds are also used to educate hunters to develop the skills, knowledge, and attitudes for responsible hunting. Seventy-five percent of the funds for this report are from Federal Aid.

RICHARD BLOOMQUIST