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United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. TUDOR RD.
ANCHORAGE, ALASKA 99503



MEMORANDUM

SEP 7 1988

TO: Refuge Manager, Kenai Refuge

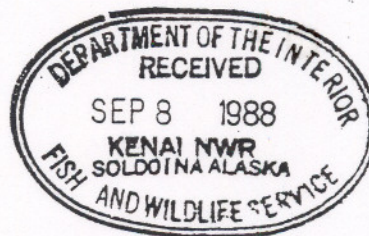
FROM: Refuge Supervisor, South *Paul R. Schmidt*

SUBJECT: Wolf Management Procedures

Attached is the signed "Wolf Management Operational Plan." It is a set of procedures that have been agreed upon with the Alaska Department of Fish and Game. I fully support this agreement and expect it to be implemented to its letter and spirit. Please ensure that all appropriate staff are aware of the details of the agreement.

Attachment

cc: Dan Timm, Alaska Department of Fish and Game
Assistant Regional Director, Refuges and Wildlife



Route	X Action
RM	MM
DRM	EO
AO	NOV
OG	AT
FWE	CT
WB	CT
REC	SA
EP	ALL
FT	File
FIR	IT
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Wolf Management Operational Plan
Game Management Unit 15A
Northern Portion of the Kenai National Wildlife Refuge

The purpose of this operational plan is to establish a wolf management strategy for the Kenai National Wildlife Refuge that will be jointly implemented by the Fish and Wildlife Service and the Alaska Department of Fish and Game.

The Kenai Refuge Comprehensive Conservation Plan set an overall objective of maintaining 90 wolves (fall population estimate) on the refuge. To help meet this objective, the lowlands area of Game Management Unit 15A will be managed using a quota system. This area is identified as that portion of the Kenai Refuge in Unit 15A west of the line delineated by the Mystery Creek Road and pipeline corridor. The post-harvest (i.e., after trapping and hunting) population objective for this area will be 25 to 35 wolves. An annual fall/early winter census will be conducted jointly by the Fish and Wildlife Service and the Alaska Department of Fish and Game to determine the size of the population. The census will be based on documented wolves (including an estimate for loners and pairs), but not including the Big Indian and the Mystery Creek/Quartz Creek packs.

Post-Season Wolf Objective (exclusive of the Big Indian and Quartz Creek/Mystery Creek pack): Range of 25 to 35 with the intent being to provide a minimum of 28 wolves post-season.

Fall Population Census: An annual fall population census (with an estimate for loners and pairs) will be the basis for the harvest quota for the hunting/trapping season. As early in the fall/winter as suitable snow conditions occur and good survey weather is forecasted, a joint-agency intensive census of wolves in Game Management Unit 15A will be made using experienced pilots (three, if possible) and observers in Supercub or equivalent aircraft. The census will be made no later than December 20. Radioed packs will be located, animals counted, and if possible, packs backtracked to where individual tracks will be counted after landing. The larger of confirmed track counts or individual animal counts will be used to determine pack sizes.

In areas where wolves are believed present, but there are no radioed wolves in packs, a Supercub or equivalent aircraft and experienced pilot and observer will thoroughly search, backtrack, and count animals and/or count tracks from the ground, and a best estimate of wolves within the search area will be made. These counts will be made by a separate experienced pilot and observer during the same day that radioed wolves are being located, and will only be used where necessary to help fill in data gaps.

The fall wolf population for the lowlands area of Game Management Unit 15A will be determined by totaling all animals counted in packs (3 or more wolves together) and adding 15 percent to account for lone wolves and pairs. If the number of other wolves observed during the aerial counts exceeds 15 percent of wolves in packs, the observed number of wolves will be used in calculating the fall population. When the 15 percent correction factor is used, the calculated population will be rounded down or up if the fractional estimate is $<.5$ or $>.5$, respectively. All known mortality of wolves after September 1 and before the fall census will be added to the census results to determine a final fall (pre-season) population.

The local department area biologist and deputy refuge manager will mutually agree to a final fall population figure by December 31. This agreement will be a matter of record and documented in a joint report to the respective agency supervisors.

Post-Season Population Size: The post-season population size and the population size any time between September 1 and April 30 will be determined by subtracting all known mortality from the final fall population. The figure will be determined by mutual agreement between the area biologist and deputy refuge manager.

Radio Placement: Both agencies consider it a high priority to have radio transmitters on individuals in all wolf packs and will look for opportunities throughout the year to accomplish this. It is most desirable to place radios in all packs after the trapping season ends to reduce the likelihood of losing radioed wolves before the fall population estimate is made. However, trappers may be asked to provide wolves on which radios can be placed during the trapping season, or agencies may decide to deploy radios during the trapping season. The recapture and release by trappers of radioed and still healthy wolves (as determined by the agencies after inspection) will require payment to the trappers for such wolves.

Cost Sharing: The intent of each agency is to share equally the cost of radio replacement (aircraft, drugs, equipment, radios, trapper payments, and small miscellaneous costs) and the annual fall population census.

Modification of Trapping and Hunting Seasons: Hunting and trapping seasons will be closed by emergency order, if necessary, to assure a post-season population size of 25 to 35 wolves, with 28 wolves being the annual minimum population size from an operational standpoint. Closure will occur when the population has reached 28 as indicated by known mortality.

If the pre-season population exceeds 48 wolves for two consecutive years and the second year harvest is not adequate to result in the post-season population objective range (25 to 35), then a management action will be taken to increase the wolf harvest during that second year to achieve the post-season objective. An emergency extension of the trapping season will be considered along with other methods that would increase the wolf harvest. If the final pre-season fall population is less than 38 in any year, the trapping and hunting seasons will immediately be closed by emergency order.

Resurveying/No Survey: If unforeseen survey conditions or logistical factors preclude an acceptable fall survey (as determined and approved jointly by the two respective agency supervisors) all of Game Management Unit 15A may be surveyed again, contingent upon the financial capabilities of either agency to complete a second survey.

If a complete fall population estimate is not possible for reasons of unacceptable survey conditions, the current year's pre-season fall population will be calculated by expanding the previous year's post-season estimate by 43 percent [assumes a 30 percent harvest rate will result in a stable population based upon Peterson's (1981) work and a reduced prey base since.]

Surveillance: It is the intent of both agencies to increase routine and specific surveillance efforts for law enforcement purposes.

Moose/Wolf Ratios: The wolf population objective will be reviewed for possible change before the 1991-92 trapping season. It is the intent of both agencies to jointly analyze predator/prey ratios in Game Management Unit 15A to quantify the prey base necessary to meet the current wolf population objective, and to quantify the wolf population objective in relation to the moose population objective and current population size and trend. Factors which influence survival of moose and wolves will be quantified to the extent that they may influence moose and wolf population objectives. Management options will then be jointly identified and implemented by the agencies, if necessary.

Unresolved Issues/Disagreements: Any issues (including population figures, surveys, etc.) that cannot be resolved at the local level will be reviewed by the regional supervisors for resolution as soon as possible after the issue is identified. Should agreement at that level not be reached the next level of management will review the matter for resolution.

Approval:

Daniel E. Timm
Regional Supervisor
Alaska Department of Fish and Game

8/31/88
Date

Paul R. Schmidt
Refuge Supervisor
U.S. Fish and Wildlife Service

8/22/88
Date

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Refuge Supervisor
U.S. Fish and Wildlife Service

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In consideration of the spirit and intent of this operational plan, and in an attempt to improve and clarify the implementation of the plan in a practical sense, the Department and the Service agree that:

The Skilak Pack will be included in the population estimate for Game Management Subunit 15(A) regardless of their physical location in relation to the Mystery Creek Road and Alaska Pipeline at the time of counting.

Wolves harvested by traplines originating from the Mystery Creek Road and Alaska Pipeline will be counted against the harvest quota established for GMU 15(A)

Wolves harvested by traplines originating from the Resurrection Trail will not be charged against the GMU 15(A) quota.

The Area Biologist and the Deputy Refuge Manager will jointly review and decide on harvested wolves in question.

Agree

Ted H. Jucker Area Biologist 9/13/88

Agree

Mike Hedrick Deputy Refuge Manager 9/13/88