Alaska Department of Fish and Game Wildlife Restoration Grant

Grant Number:	AKW-7 Intensive Management FY2016 Segment Number: 1
Project Number:	2.0 Moose
Project Title:	Statewide Intensive Management for Moose Populations Identified as Important for Providing High Levels of Harvest for Human Consumptive Use and Predators Influencing Moose Population Status.
Project Duration:	April 1, 2015 – March 31, 2020
Report Period:	April 1, 2015 – March 31, 2016
Report Due Date:	December 29, 2016; resubmitted December 1, 2017
PRINCIPAL INVESTIGATOR: Cynthia Wardlow (RII), Doreen Parker-McNeil (RIII), Tadd A. Diraldi (DIV)	

Todd A. Rinaldi (RIV)

WORK LOCATION: Regions II, III, and IV

I. PROGRESS ON PROJECT OBJECTIVES DURING LAST SEGMENT

Objective 1: Conduct more frequent and more robust surveys to estimate the population size and composition (bulls, cows and calves) of moose to evaluate if IM treatments are successful.

<u>Region III</u>

As part of our assessment of on-going predation control we conducted Geospatial Population Estimator (GSPE) surveys during November in the Unit 24B Upper Koyukuk Management Area (preliminary results found 509 moose). Two other surveys were planned for spring in Unit 19A, but were not accomplished due to the lack of adequate survey conditions.

Region IV

Between November 22 and December 2, Region IV performed an early winter GSPE survey in Unit 13B to improve the precision and accuracy of moose population estimate. Preliminary estimates are 4,762 moose (80% CI = 4,232-5,293). This survey is post-wolf control activity, which last occurred in FY2014. We are comparing results from the new GSPE surveys to results from annual trend survey to evaluate accuracy of the GSPE

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estimates. It will take multiple surveys to make this comparison, so a comparison of results cannot be conducted at this time.

<u>Region V</u>

Region IV was unable to conduct work on this objective in Unit 16 due to staff, weather, and logistical limitations.

Objective 2: Estimate calf production, survival and causes of mortality using radio-collars and or camera-collars to determine if a) calf mortality can be reduced to meet IM population and/or harvest objectives or b) to evaluate the effects of the IM treatment.

<u>Region III</u>

In Unit 24B 60 radio collars were deployed on moose calves, and 12 radio-tracking flights were conducted throughout the year. The estimated survival rates were 77% in the Upper Koyukuk Management Area and 83% in the experimental non-treatment area.

Objective 3: Estimate adult moose survival rates using radio collars to evaluate the effects of the IM treatment.

No activities were conducted under this objective for AKW-7 because information on adult moose survival rates was not needed. Activities are scheduled to begin in Unit 9 during the state's FY2017.

Objective 4: Monitor moose nutritional status to evaluate the influence of nutrition on moose population status and evaluate IM population objectives.

No activities were conducted under this objective for AKW-7 because work conducted under AKW-10 was adequate to assess moose nutritional status. No additional work was required under AKW-7 to improve the accuracy of these measuring techniques.

Objective 5: Monitor forage abundance and utilization to evaluate browse abundance and quality and determine habitat capability to develop reasonable IM population objectives.

<u>Region II</u>

Forage abundance and utilization surveys have not been planned in Unit 15A. Measurement of forage availability and utilization in Unit 15C began in spring of 2016. Sampling continued in the spring of 2017. Data analysis is currently ongoing and results will be reported when all surveys are complete.

<u>Region IV</u>

Region IV did not conduct any activities relevant to this project objective in Units 13 or 16 during FY2016 due to logistical constraints and lack of adequate survey conditions.

Objective 6: Investigate and monitor wolf, black bear and brown bear abundance relative to defined IM objectives.

<u>Region II</u>

Weather conditions have not allowed surveys of wolf numbers in Units 15A or 15C to be completed for several previous years. Bear abundance studies were not conducted during FY2016 and are not currently planned for future years.

<u>Region IV</u>

Wolf surveys were not conducted in Units 13 and 16 due to staffing, weather, and logistical constraints.

<u>Statewide</u>

In response to a public perception that liberalizing hunting of black and brown bear could reduce bear predation on moose, the department is developing a database to track the changes in bear regulations and analyzing the response of the bear population. Preliminary results are not available at this time.

Objective 7: Report findings in appropriate scientific and popular publications.

<u>Region II</u>

• Annual Report to the Alaska Board of Game on Intensive Management for Moose with Wolf Predation Control in Game Management Unit 15A. February 2016.

<u>Region III</u>

- Annual Report to the Alaska Board of Game on Intensive Management for Moose with Wolf, Black Bear, and Grizzly Bear Predation Control in Game Management Unit 19A. February 2016.
- Annual Report to the Alaska Board of Game on Intensive Management for Moose with Wolf, Black Bear, and Grizzly Bear Predation Control in Game Management Unit 19D East. February 2016.
- Annual Report to the Alaska Board of Game on Intensive Management for Moose with Wolf Predation Control in Game Management Unit 24B. February 2016.

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• Operational Plan for Intensive Management of Moose in Game Management Unit 21E during Regulatory Years 2017–2022. February 2016.

<u>Region IV</u>

- Annual Report to the Alaska Board of Game on Intensive Management for Moose with Wolf Predation Control in Game Management Unit 13. February 2016.
- Annual Report to the Alaska Board of Game on Intensive Management for Moose with Wolf Predation Control in Game Management Unit 16. February 2016.

Region V

There are no predation control programs in Region V that require an annual report to the Board of Game.

II. SIGNIFICANT DEVIATIONS AND/OR ADDITIONAL FEDERAL AID-FUNDED WORK NOT DESCRIBED ABOVE THAT WAS ACCOMPLISHED ON THIS PROJECT DURING THIS SEGMENT PERIOD

One activity previously reported under this grant was unallowable because it was not significantly different in nature from activities conducted to accomplish AKW-10 objectives; specifically, the activity was a moose twinning survey in Unit 19D. This activity was reported in the AKW-10, project 1.73 report, and the costs are being corrected through an adjustment to FY2018 AKW-23. Even though progress was made on similar work conducted under AKW-10, no work was conducted on this AKW-7 enhanced objective.

In most cases personal services were not charged to AKW-7 field projects. The project leads were asked to provide a list of employees who worked on the AKW-7 field project and to provide an estimate of how much staff time each employee should have charged to the AKW-7 field project. A cost estimate of personal services was produced for each employee on a field project-by-project basis and we prepared detailed spreadsheets to show the adjustment between the AKW-7 and base grants. We understand that the adjustment will be done between FY2018 grants.

There were also several activities charged appropriately to AKW-10 which were accidentally included in previous submissions of the AKW-7 report and are removed from this report. These activities were identified based on a close comparison of project reports, audit trails, and interviews with principal investigators, and have been subsequently removed from the AKW-7 reports, including a moose survey in Unit 19D, a

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moose capture in Unit 20A, and a black bear survey in Unit 19D. No funds were spent on these activities from this grant.

As a result, \$20,261 will be debited to the grant for personal services charged to AKW-10, project 1.0, and \$16,879 will be credited from AKW-10, project 1.73, for unallowable expenses, resulting in a net change of \$-3,382 for FY2016 AKW-7, project 2.0, will be applied to FY2018, AKW-23.

III. RECOMMENDATIONS FOR THIS PROJECT

The department will request that this grant is terminated on June 30, 2018. No further activities will be conducted under this grant after that date.

Prepared by: Nathan Soboleff **Date:** December 22, 2016

Revised by: Brenda Bowers and Lem Butler **Date:** December 1, 2017