

Wildlife Restoration MULTI-YEAR GRANT INTERIM PERFORMANCE REPORT

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF WILDLIFE CONSERVATION
PO Box 115526
Juneau, AK 99811-5526

Alaska Department of Fish and Game Wildlife Restoration Grant

GRANT NUMBER: AKW-5

PROJECT NUMBER:

PROJECT TITLE: Habitat Enhancement for Wildlife

PERIOD OF PERFORMANCE: October 1, 2014 – September 30, 2022

PERFORMANCE YEAR: October 1, 2020 – September 30, 2021

REPORT DUE DATE: Submit to Coordinator December 24, 2021; due to FAC December 29, 2021

PRINCIPAL INVESTIGATOR: Sue Rodman, Program Coordinator and Dan Thompson, Wildlife Biologist

COOPERATORS: Mary Jo Hill, Wildlife Biologist; Miles Spathelf, GIS Analyst; Jeff Wells, Assistant Area Biologist; and Clint Cooper, Manager Delta Junction Bison Range, ADF&G.

Authorities: 2 CFR 200.328
2 CFR 200.301
50 CFR 80.90

I. PROGRESS ON PROJECT OBJECTIVES DURING PERFORMANCE YEAR

OBJECTIVE 1: Develop local or regional plans to moderate environmentally-driven changes in moose populations through habitat enhancement; address both short and long-term options.

In contributing to interagency efforts, ADF&G seeks to address wildlife habitat quality through variability in forest stand structure and composition. This is most easily imagined in a mosaic of forest cover types common to Southcentral Alaska and spanning the boreal and interior regions of the state with shifts in continuity of stand types across the landscape. With current conversations addressing fire's role in a changing climate, resilience becomes the term of the realm as managers consider how to prepare for changing patterns of disturbance and weather. While this concept is difficult to implement in a management scheme, it can be incorporated into projects at scales that accommodate timelines and funding.

ADF&G staff contributed further to the Kenai Peninsula Borough's Community Wildfire Protection Plans. Rodman, Fowler, and Herreman attended community meetings in Soldotna, Nikiski, and Homer in addition to contributing content for the plans and attending core team meetings. Final text contributions will be made to the draft plan in the coming winter. This Plan is aligned with the 2018 Action Plan of the Kenai Peninsula All Lands All Hands group and the National Cohesive Wildland Fire Management Strategy.

Final edits are in progress for the Moose Habitat Guidelines technical bulletin. This wildlife technical bulletin is intended to serve ADF&G staff along with others working on habitat enhancement projects on other lands. It summarizes how to prepare for mechanical and prescribed fire treatments, discusses biological characteristics of moose relative to browse and habitat needs, and provides decision support for developing new projects.

OBJECTIVE 2: Improve habitat quality for moose populations by increasing quality and quantity of forage, especially during winter.

Considerable time and effort were put into preparing for the Alphabet Hills and Delta Junction spruce islands prescribed burns. At this time, both of these burns are on hold for implementation under this grant award. Work continues to complete the logistical and planning requirements, but additional political support is needed across agencies. Management of risk, smoke, and public engagement must meet the requirements of each land and fire manager involved. Unfortunately, criteria are not fully established for approvals to be met. Because prescribed fire at these scales is rarely done in Alaska, most agency staff have little to no experience coordinating all of the attributes and logistics associated with lighting fires in black spruce.

Smoke and fire behavior are major concerns for public safety and health; agency liability for loss of control is a key driver in risk aversion by staff. Alaska has the expertise and capacity to build a successful prescribed fire program across the land and fire management agencies, but considerable coordination is needed to establish protocols and thresholds for application of fire on the landscape. The Alaska Wildland Fire Coordinating Group has recently re-established its Fuels Management Committee of which Sue Rodman is an active member. This group promotes collaboration across agencies in developing project plans, supporting logistics, and leveraging funds and staff expertise. This group is important to Alaska proceeding toward more prescribed fire applications with consistency and improved communication. Rodman made several presentations along with Tom Paragi to DNR's Division of Forestry both at the Fall 2021 Board of Forestry meeting and at the Division's Fall Fire Review in support of agency collaboration on prescribed fire and forest management to benefit wildlife habitat while also improving the safety of communities through fuel break development and forest stewardship practices.

The DEC Open Burn Permit applications were prepared for DJBR fields, DJBR spruce islands, and Alphabet Hills prescribed fires along with associated smoke management plans by Mary Jo Hill and Sue Rodman with technical support from Miles Spathelf. Approved permits were delivered to ADF&G for all three projects.

OBJECTIVE 3: Develop partnerships with local, state and federal entities to leverage treatment prescriptions with other land management objectives and actions.

As in other years, the 2021 prescribed burning of the field complexes at DJBR supports training and skill development for DNR staff while providing the expertise needed for ADF&G to implement this burn. This beneficial partnership complements the needs of both agencies while leveraging costs and expertise.

While holding regular meetings to complete the DJBR spruce islands and Alphabet Hills burn plans, ADF&G gained the expertise and support from BLM's Alaska Fire Service and DNR's Division of Forestry through Casey Boespflug and Kato Howard, respectively. Additionally, Erick Stahlin and Thomas Grubbs from the US Forest Service provided their expertise in writing and working through the risk assessment. Boespflug, Stahlin, Rodman, and Mike Goyette (DNR Delta) spent two field days testing the operational details of the DJBR spruce islands burn plan against one another's experience and knowledge to ensure all elements of the operation were sound. Other staff from BLM and DNR also supported these burn plans through virtual meetings, phone calls, and emails.

BLM staff at the Glennallen Field Office and USFWS staff from Anchorage contributed to establishing the cultural resources review and protocols during the prescribed burn at Alphabet Hills. This information was incorporated into the burn plan and post burn site review.

II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.

Job/Activity 1: Kenai Peninsula – GMU 15

Activities and planning conducted for the Kenai Peninsula is reported under the AKW-16 federal aid project.

Job/Activity 2: Matanuska – Susitna Drainages – GMU 14 (subunits A and B)

Staff plan to establish permanent plots in GMU 14 during the 2022 field season to evaluate browse and vegetation response after wildfires between 2015 and 2020. ADF&G will also evaluate how habitat enhancement can be further incorporated into State Critical Habitat Areas in this GMU through the Refuges Program and in partnership with DNR, who currently conducts firewood cuts in these areas.

Job/Activity 3: Susitna River Area – GMU 16

As indicated for GMU 14 above, staff plan to establish permanent plots in GMU 16 during the 2022 field season to evaluate browse and vegetation response after wildfires between 2015 and 2020.

Job/Activity 4: Nelchina & Upper Susitna – GMU 13

The BLM has been partnering with ADF&G on the Alphabet Hills prescribed burn since its inception. The protracted NEPA process required to cover federal lands involved in the project highlighted several important lessons in prescribed fire planning. By the end of the summer 2021, the BLM's NEPA coordinator took over the project to facilitate the analysis and decision process; substantial progress was made in the months following. A decision of record is expected in early 2022.

ADF&G's draft application to USFWS for an Eagle Take permit was denied due to timing and inadequate detail. Field surveys were completed for both Golden and Bald Eagles prior to leaf out so baseline data is established and will be used for the 2022 update of the application. Staff from USFWS met with ADF&G and BLM to line out specific requirements needed for the permit application.

Resource staff from the BLM were not familiar with wildlife responses to prescribed fire and posed many questions for the NEPA analysis. Rodman is co-leading a workshop with BLM's Wildlife Biologist Casey Burns to engage resource professionals (wildlife, archeology, forestry, hydrology, etc.) with fire and fuels managers in preparing for fuel treatment projects to include prescribed fire with respect to addressing resource concerns during the planning process. Elements of this workshop include the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, anadromous streams, wildlife conservation, cultural resources, and public engagement. With federal agencies set to receive millions of dollars in fuel treatment funding later in 2022, preparing for project design and facilitating the planning process are important elements in fostering complementary projects that leverage agency capacity and expertise along with funding opportunities.

The complication in completing some of these tasks is directly associated with the dependence of ADF&G on federal agency staff with sufficient expertise to provide the operational guidance for the prescribed fire plan. This situation applied to adequately applying for the Eagle Take permit and developing a sound budget for implementation. Alignment of staff time to support ADF&G projects is challenged by agency position duties, fire season in Alaska, and deployments to fire incidents in the Lower 48. All staff involved agreed that a version of a memorandum of understanding would help to meet the timelines associated with the funding source, however some challenges may persist. This would also serve to define roles and responsibilities for each staff member involved in the process and set milestones for major tasks.

Job/Activity 5: Delta Area - GMU 20D

For the Delta Junction Bison Range (DJBR) spruce islands burn, ADF&G coordinated with the US Forest Service, BLM Alaska Fire Service, and DNR Division of Forestry to complete the prescribed fire plan consistent with federal guidelines in the Interagency Prescribed Fire Planning and Implementation Procedures Guide (PMS 484) published by the National Wildfire Coordinating Group. The plan was submitted to DNR for technical review and approval in June 2021; DNR denied the plan and no recourse was provided. ADF&G staff appealed to DNR to

develop a path forward in 2022; that request is under review. Issues surrounding smoke management and fire behavior as mentioned above preclude DNR from approving this plan although verbal support was given to ADF&G in the years preceding 2021. Rodman will support DNR's review of the burn plan with accommodations for expanding public outreach and consideration for increasing fuel break widths between the DJBR and the Alaska Highway.

Along with DNR staff from the Delta Junction office, 6 ADF&G staff participated in the DJBR field burns in April 2021. Four staff have Incident Qualification System cards from the NWCG: Gino del Frate, Bob Schmidt, Jason Herreman, and Sue Rodman. Mike Taras and Jen Curl were on site documenting the project through photography and videography. With assistance from the White Mountain Type 2 Crew based in Fairbanks, DNR Technicians and Fire Management staff lead the operation for two days burning 688 acres with drip torches. A weather system moved in immediately following the second day's burn and several inches of snow covered the area the next day. This low-cost annual operation limits woody brush encroachment on the field complexes while stimulating grass regeneration for bison. In selected fields, burning the young aspen and willow stimulates regeneration beneficial to moose. Grouse and hare habitat is also supported by this operation.

In the winter months, DNR staff again roller chopped polygons at the DJBR to enhance habitat for moose and grouse. This year's work treated 116 acres near the Gerstle field complex. Additionally, the crew used the roller chopper and dozer to repair access routes within the DJBR for ADF&G staff and other users of the area: the 1397 road and the Bison Trail were 'opened' with the roller chopper and the debris was then pushed into the eroded areas thereby creating a new drivable surface. This allows managers easier movement on the existing routes between the field complexes and road system with machinery.

Staff developed the project kiosk for the DJBR habitat projects including roller chopping and prescribed burns. Jen Curl coordinated the design and production from Fairbanks. Installation is planned for spring 2022 at the Gerstle River Day Use Area in conjunction with the Alaska Department of Transportation.

Job/Activity 5: Tok Area – GMU 12

In May 2021, Jeff Wells, Tok assistant area biologist, coordinated final sampling of the moose pellet transects in the roller chopped areas of the 1990 Tok River Fire with technicians from Delta, Anchorage, and Fairbanks. These data were analyzed with respect to several variables. As is the case with other habitat enhancement projects, harvest reporting locations are not required at a fine scale and therefore cannot be directly correlated to the treatment sites. General conclusions from this study indicate that moose prefer smaller treated polygons (e.g., ≤ 10 acres) over large ones, and that improvements to reporting specific locations may be done through hunter outreach to better correlate treatment with harvest opportunity.

Job/Activity 6: Acquire Roller Chopper

The ADFG Roller Chopper continues to operate in the Delta Junction Bison Range. The hitch assembly was re-designed and repaired by the manufacturer.

III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.

None.

IV. PUBLICATIONS

Attached are selected publications that expand on work completed in this reporting period:

- Delta Junction Bison Range Phase II Spruce Islands Prescribed Fire Plan
- Delta Junction Bison Range habitat enhancement kiosk
- 2021 Moose utilization of the Tok River moose habitat area summary memo

V. RECOMMENDATIONS FOR THIS PROJECT

ADF&G will continue working on mechanical habitat enhancement treatments in Delta while wrapping up all of the permitting and planning elements of the two large, prescribed fire plans.

Prepared by: Sue Rodman

Date: December 31, 2021