



SUSITNA-WATANA HYDROELECTRIC PROJECT

Terrestrial Resources

Wildlife Program

Agency Consultation Meeting

April 9, 2014

Prepared by ABR, Inc. —
Environmental Research & Services



Overview of Wildlife Plans for 2014

Study	Subject	Plans for 2014
10.5	Moose	Radio-tracking continuing; browse survey (year 2) deferred to 2015.
10.6	Caribou	Radio-tracking continuing.
10.7	Dall's Sheep	Mineral lick observations + aerial surveys to complete study.
10.8	Large Carnivores	Bear density modeling completed; analyses of bear hair samples from 2013 in progress; completion deferred to 2015.
10.9	Wolverine	SUPE survey to be completed, pending suitable conditions.
10.10	Terrestrial Furbearers	Year 2 of field surveys currently in progress, with modifications.
10.11	Aquatic Furbearers	Winter track surveys of carnivores + spring/fall beaver surveys; hair-snagging for mercury sampling; muskrat survey deferred to 2015.
10.12	Small Mammals	Desktop study deferred to 2015.
10.13	Bats	Year 2 of acoustic detector survey (reduced effort); adding telemetry to locate roosts and complete study.
10.14	Eagles & Other Raptors	Nest occupancy/productivity surveys (other tasks deferred to 2015).
10.15	Waterbirds	Aerial surveys (migration, breeding, broods); no radar/visual sampling.
10.16	Landbirds & Shorebirds	Year 2 of point counts + riparian/lacustrine surveys; no swallow survey.
10.17	Willow Ptarmigan	Capture/radio-tracking + aerial transect surveys continuing.
10.18	Wood Frog	Year 2 of auditory surveys + acoustic monitoring to complete study.
10.19	Wildlife Habitat Evaluation	Desktop study deferred to 2015.
10.20	Wildlife Harvest Analysis	Desktop study deferred to 2015.



Revised Study Plan Section 10.17

Population Ecology of Willow Ptarmigan in Game Management Unit 13

Status of Aerial Transect Surveys



Rick Merizon

Small Game Biologist

Alaska Department of Fish and Game

Palmer, Alaska

richard.merizon@alaska.gov

Objectives

1. Determine seasonal distribution of Willow Ptarmigan (WIPT)
2. Determine the seasonal migratory patterns of WIPT
3. Estimate abundance of ptarmigan during the breeding season and the fall
4. Estimate survival of WIPT

Objectives

3. Estimate abundance of ptarmigan during the breeding season and the fall

Revised Study Plan

RSP Section 10.17.4.3, Aerial Transect Surveys:

During September and March each year, aerial transect surveys will be flown to assess the abundance and density of ptarmigan using line-transect or repeat-count techniques. In addition to abundance, these surveys will provide data on the overall distribution of all ptarmigan in subunits 13A and 13E.

2014 Transect Results

1. 21 January – 300 km flown, 6 flushing events
2. 27 March – 200 km flown, 4 flushing events
3. Too few observations to reliably estimate site-occupancy probabilities.

Recommendation

1. Drop the Aerial Transect (Occupancy) Surveys
 2. Reallocate funds to support 1–2 additional telemetry flights
- * Will bolster our ability to achieve Objectives 1 and 2
 - * Continuing abundance surveys at each capture location in the spring will allow us to estimate densities (Objective 3)

Follow-up on Action Items from March 6 Technical Meeting

Action Items	Responsibility	Timing
Provide feedback to AEA on the study area for the raptor migration surveys, based on the 2013 data, in time to be included in the June 3, 2014 filing for Study 10.14.	USFWS, ADF&G	Technical consultation before Final ISR
Provide feedback to AEA on the type of data that should be collected for the raptor nest characterization component of Study 10.14 (Eagles & Other Raptors).	USFWS, ADF&G	Technical consultation before Final ISR
Provide feedback regarding proposed modification of the woodland raptor surveys (Study 10.14) from using transects to quadrats to increase detectability, in time to be included in the June 3, 2014 filing.	USFWS, ADF&G	Technical consultation before Final ISR
Review the 2013 data for the Harlequin Duck pre-nesting and brood surveys to look for correlation between the two. If so, one or the other survey may not be necessary.	ABR	Technical consultation before Final ISR
Synthesize the 2013 data from all migration survey tasks, as well as with other radar surveys conducted in Alaska, to provide more context regarding whether an additional year of radar data collection would yield useful information.	ABR	Technical consultation before Final ISR



Follow-up on Action Items from March 6 Technical Meeting

Action Items	Responsibility	Timing
In ISR 10.16 (Landbirds & Shorebirds; p. 4), agencies would like additional detail to clarify how the selection of the point-count locations was performed in an unbiased fashion, using a combination of random and systematic approaches.	ABR	Final ISR (June 3)
In ISR 10.16 (Landbirds & Shorebirds; pp. 20–21), convert the metric used for the riverine transect data from birds/hour to linear densities (birds/km).	ABR	USR
For the lacustrine transect data in the Landbirds & Shorebirds study, revise the metric to indicate the total number of birds recorded on each waterbody surveyed.	ABR	USR
For the Landbirds & Shorebirds study, include more details on how densities were estimated from the point-count survey data, including any assumptions made.	ABR	Final ISR (June 3)
For the Landbirds & Shorebirds study, indicate which density estimates were made using data for assumed pairs or for males only.	ABR	Final ISR (June 3)

Follow-up on Action Items from March 6 Technical Meeting

Action Items	Responsibility	Timing
Add clarification to ISR 10.14 (Eagles & Other Raptors) regarding the difference between a nest that was occupied vs. having signs of occupancy (p. 12).	ABR	Final ISR (June 3)
Submit application to USFWS to salvage Bald Eagle feathers and other tissues for mercury analysis. <i>**May not be needed. See action items from March 7, 2014 regarding collaboration with other researchers.**</i>	ABR	Technical consultation before Final ISR
For ISR 10.10 (Terrestrial Furbearers), add a map showing hair-snag stations by species (lynx and marten).	UAF & ABR	Final ISR (June 3)
For Study 10.18 (Wood Frog), consult Tara Chestnut (USGS) regarding the feasibility of testing environmental DNA to assess the possible presence of chytrid fungus.	ABR	Technical consultation before Final ISR



Follow-up on Action Items from March 7 Technical Meeting

Action Items	Responsibility
Send AEA the contact information for Bill Bowerman at the University of Maryland.	Lori Verbrugge, USFWS
Send AEA the contact information for Dave Evers at the Biodiversity Research Institute.	Dave Tessler, ADFG
Speak with Travis Booms (ADFG, Fairbanks) to see if he is interested in expanding his Bald and Golden Eagle telemetry study to include the Project study area to opportunistically capture Bald Eagles for tissue collection and mercury analysis.	Dave Tessler, ADFG
Identify CIRWG shareholder(s) who may be interested in trapping river otter and/or mink in the study area for the mercury assessment (Study 5.7).	Dara Glass, CIRI
Contact Bill Bowerman and Dave Evers about possible collaboration on the mercury study to obtain bird tissue samples for the mercury study.	Brian Lawhead, ABR
Research techniques surrounding the capture of Red-breasted and Common mergansers; e.g., speak with John Pearce (USGS) about possible capture methods to obtain tissue samples for the mercury study.	Brian Lawhead, ABR



Questions?



Wolf near Deadman Creek and the Denali access corridor, June 3, 2013.



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