AGENDA ITEM or FINAL CONTRACT REVIEW SUBMITTAL FORM

AgendaTitle:
Application for Gunnison Sage Grouse Conservation Trust Funds; Raven Study at the Gunnison County Landfill; Dr. Patrick Magee; $4,500

Action Requested: Discussion

Parties to the Agreement: Gunnison County & Patrick Magee

Term Begins: ASAP **Term Ends:** 12/31/2014 **Grant Contract #:**

Summary:
For a number of year the landfill has had a raven take permit trying to reduce the number of ravens and subsequently reduce their impact on sage-grouse. During the discussions earlier this year about increasing the area managed and he methods of control. The proposal was brought forward to learn more about raven behavior.

Fiscal Impact: $2,250 in 2013; $2,250 in 2014

Submitted by: B. Lucero fro M. Crosby **Submitter's Email Address:** mcrosby@gunnisoncounty.org

Finance Review: (●) Required ( ) Not Required

Comments:

Sufficient appropriation in 2013 budget, Sage Grouse Fund, to cover this cost.

Reviewed by: Lnienhueser Discharge Date: 7/25/2013

County Attorney Review: ( ) Required (●) Not Required

Comments:

Reviewed by: Discharge Date: Certificate of Insurance Required Yes ( ) No ( )

County Manager Review:

Comments:

Reviewed by: MBirnie Discharge Date: 7/29/2013

(●) Consent Agenda ( ) Regular Agenda ( ) Worksession Time Allotted:

Agenda Date: 8/6/2013 Follow Up Agenda Date: N/A

Revised April 2013

RECEIVED JUL 2 2 2013

19 July 2013

To: Gunnison Sage-grouse Conservation Trust Fund Committee

From: Patrick Magee!

Re: Invoice for "Raven Study"

Gunnison Sage-grouse Conservation Trust Fund Committee,

Thank you for the support of my application entitled, "Spatial and temporal abundance and distribution of the common raven (*Corvus corax*) in relation to anthropogenic resources and subsidies in the Gunnison Basin". The work includes a one year, bi-monthly survey of common ravens in the Gunnison Basin. I will conduct surveys at nine locations three times a day on each of the 24 surveys. Total approved funding from the Gunnison Sage-grouse Conservation Trust Fund was $4,500, paid in two installments (one up-front and one after the final report is received). These Gunnison County funds have been leveraged by Colorado Parks and Wildlife through their National Fish and Wildlife Foundation Gunnison Sage-grouse grant funds ($6,636). The total project cost is $11,136. A final report will be submitted to the committee no later than 31 December 2014.

This invoice is for 50% of the Gunnison Sage-grouse Conservation Trust Fund portion of the funding or **$2,250**. Payment should be submitted to:

Dr. Patrick Magee!
323 North Wisconsin Street
Gunnison, CO 81230

Please contact me if you have any questions or concerns.

Sincerely,

Patrick A. Magee!

323 N. Wisconsin St.

Gunnison, CO 81230

970-641-3959

APPLICATION FOR
GUNNISON SAGE GROUSE CONSERVATION TRUST FUNDS

Provide a project map in addition to this application. The map should identify the project site, its relationship to adjacent lands, land ownership, and general location. Include significant sage grouse habitat features in and around the project area.

PART I – Applicant Information

Must be completed for all applications.

Name/Title of Proposed Project: Spatial and temporal abundance and distribution of the Common Raven (*Corvus corax*) in relation to anthropogenic resources and subsidies in the Gunnison Basin.

Applicant: (Who will actually receive the grant funds)

Name: Patrick Magee!

Mailing Address: 323 North Wisconsin Street

Telephone Number: 970-641-3959 Fax Number: 970-943-7120

E-mail Address: pmagee@western.edu

Lead Jurisdiction / Agency: (DOW, NRCS, BLM, etc. In the case of a multi-jurisdictional/agency application, please provide the names of all of the participating agencies and/or individuals)

Contact Person: (same as above) Agency: _____

Mailing Address: _____

Telephone Number: _____ Fax Number: _____

E-mail Address: _____

Other Agency or Designated Contact Person:

Contact Person: Allen Moores Agency: Gunnison County PWD

Mailing Address: 195 Basin Park Drive, Gunnison, CO 81230

Telephone Number: 970-641-0044 Fax Number: 970-641-8120

E-mail Address: amoores@gunnisoncounty.org

PART II: Project Information

Must be completed for all applications.

Project Summary: Please provide a brief description of the proposed project, including total acres protected or enhanced, and a description of the affected habitat.

The proposed project is a collaborative effort between Colorado Parks and Wildlife, the Gunnison Sage-grouse Strategic Committee, and Gunnison County. The project would begin in July 2013 and extend through December 2014. The purpose of this study is to better understand the distribution and abundance of common ravens in the upper Gunnison Basin, within the Gunnison Sage-grouse elevation contour. The emphasis is on relating raven distribution and abundance to anthropogenic features of the landscape including food, roost and nest subsidies such as roads, powerlines, exurban and urban development, and the landfill. The raven population in the Gunnison Basin has increased substantially in the last 6 decades and the impact of ravens on Gunnison Sage-grouse is unknown. While this study does not address impacts of ravens on sage-grouse, it provides baseline data for future research and management activities.

Twice monthly raven point count surveys will be conducted from July 2013 through June 2014 (12 months, 24 surveys) in a variety of locations with pronounced anthropogenic resources and in reference sites in relatively unmodified sagebrush more that 4 km from paved roads. The main emphasis of this study is to provide baseline data of raven abundance and distribution in relation to human features of the landscape. These data may be useful in assessing current and future raven management strategies. The final report will be completed in December 2014.

Goals:
What are the specific goals or objectives of the project?

The objectives of the research include:

1. Determining the abundance and distribution of ravens in association with anthropogenic resources and in areas lacking human alterations to the landscape,
2. Determining the influence of time of day and season on raven abundance and distribution.

If the proponent is not the landowner, what project objectives provide incentive for (a) landowner's cooperation, as well as for the success of the project?

Direct manipulation of habitat is not a goal of this request and the project is envisioned to occur on a variety of properties including the Gunnison County landfill, Western State Colorado University campus, within the City of Gunnison, on BLM lands, at the wastewater treatment plant, the golf course, and an agricultural field. Permissions will be required to access each of these sites to conduct counts, or remote counts will be performed from public access locations.

Need:
Describe the pre-project and anticipated post-project condition of the habitat affected by the project.

Ravens have been implicated as nest predators of greater sage-grouse and potentially are important predators of Gunnison sage-grouse. Raven numbers have grown rapidly in the last six decades in the Gunnison Basin and ravens can survive at population densities above their carrying capacity due to human subsidies of water, food, and nest and perch site. Higher populations of predators that are not regulated or limited by prey density in a fragmented landscape could lead to elevated and unsustainable levels of predation on Gunnison sage-grouse. In addition to direct human subsidies, raven use of fragmented habitats has been demonstrated and raven predation impacts on Gunnison sage-grouse may reflect a complex interplay between degraded habitat and subsidized resources that makes sage-grouse particularly susceptible to nest predation. The project is planned for the Gunnison Basin, with emphasis on modified and relatively unmodified areas within mapped Gunnison sage-grouse range.

Does the past and current habitat condition of the project area meet the Gunnison Sage-grouse Conservation Plan objectives?

NA
The project will occur at several locations throughout the Gunnison Basin including the Gunnison County Landfill which occurs in close proximity to several Gunnison sage-grouse leks. Ravens are attracted to human subsidies and these landscape features likely have impacted sage-grouse habitat, in part, by luring potential grouse predators. Ravens use sites with human food and roost subsidies and radiate away from these sources to the surrounding landscape and potentially take advantage of other food sources such as sage-grouse nests and broods.

How does the project address the purpose of the Sage Grouse Mitigation Committee? What management action is in place to meet Conservation Easement (past and current)?

This project addresses the potential for predation of Gunnison sage-grouse nests and broods by common ravens. Currently, little is known about the direct impact of ravens on Gunnison sage-grouse. To initiate a greater understanding of the impacts of ravens on sage-grouse, baseline data on raven distribution and abundance in reference to human subsidies is a first step in addressing this management need.

Describe local support for the project.

The Gunnison Sage-grouse Strategic Committee has expressed interest in learning more about potential predation pressures on Gunnison Sage-grouse. Significant predation on a targeted conservation species is one of the listing factors associated with the Endangered Species Act and current proposal to list the Gunnison Sage-grouse as an endangered species. Colorado Parks and Wildlife has expressed interest in the proposed project and is tentatively willing to provide partial project funding

through their NFWF Gunnison Sage-grouse fund.

PART III - Budget Information

Must be completed for all applications.

Project Costs and Funding Sources:

Project Activities	Project Funding						
	Total Cost	Sage-Grouse Conservation Trust Funding	In-Kind Contributions		Other Funds Requested or Committed		
			Value	Type	Amount	Source	Status
Spatial and temporal abundance and distribution of the common raven in relation to anthropogenic resources and subsidies in the Gunnison Basin	$ 11,136.00	$ 4,500.00		WSCU is providing access to a computer for data management and analysis, range finder and binoculars	$ 6,636	CPW	Requested
Totals	$11,136.00	$4,500.00			$6,636.00		

Percentage of Sage Grouse Conservation Trust fund to Total Cost: 40%

How were the total financial needs estimated?

Salary support for field work, data management and analysis and report preparation = $9,300. Travel reimbursement = $1,836. Total project cost = $11,136. Forty percent of total = $4,500.

PART IV – Other Project Information

Must be completed for all applications.

General:

Is there, or will there be a CCAA on the property? Yes ____ No _____ NA X

Is the project located on or adjacent to open space or public lands in sage grouse habitat?
Yes ____ No _____ If yes, please describe: NA

Is this project location and adjacent land uses compatible with sage grouse conservation?
Yes ____ No _____ If yes, please describe: NA

Does this project afford strategic control to protect a larger piece of desired habitat?

Yes ___ No ____ If yes, please describe: NA
Is the project located in current or historic sage grouse habitat? Yes __X__ No _____
If yes, please answer the following question:

a) What type of habitat is being protected? (Describe in terms of leks, nesting, brood rearing and winter habitat) NA

Are there water resources and/or water rights that may be available to develop or improve sage grouse habitat? NA

Maintenance & Management:
Must be completed for all applications.

Describe the long term monitoring and maintenance for project success.

NA

If there are additional maintenance costs, what is the applicant's plan for funding these?

NA

Is the landowner/applicant willing to do necessary long term maintenance?

NA

Are insecticides and/or herbicides used in project area? Yes _____ No __X__
If yes, please describe:

Is there a noxious weeds management plan for the project property? Yes ___ No ___ NA X
If yes, attach a copy of the management plan.
If no management plan has been developed, provide information about the type of herbicides that have been used, if any, and the results obtained. NA

Is the introduction on non-native birds permitted? NA

Are there overhead utility lines or other raptor perches in the project area? NA
Yes _____ No _____ If yes, please provide a map indicating locations.

Livestock & Grazing: N/A
Complete this section if livestock grazing is or will be allowed in the project area.

Grazing occurs in (check all that apply) Past _____, Present _____, Future _____.

Do current/future grazing practices meet Gunnison Sage Grouse Conservation Plan conservation actions and objectives? Yes _____ No _____

Will "Livestock Best Management Practices" be included in this project for future livestock grazing of the area? Yes _____ No _____

Will physical disturbance of sage grouse by grazing animals be minimized to the maximum extent possible on a year round basis? Yes _____ No _____

Describe current/future grazing practices as they relate to the Gunnison Sage Grouse Conservation Plan.
Is there any additional proposed fencing? Yes _____ No _____
If yes, please describe:

Additional Information:

Conservation Plan.

Does the project meet the disturbance regulations? Yes _____ No _____ NA X

Have the Rangewide Guidelines been reviewed regarding this project? Yes __ No __ NA X

Part V - Signatory

To the best of my knowledge and belief, all statements in this application are true and correct.

Signature (Principal Official): _____

Name (Typed or Printed): Patrick Magee!
Title: Wildlife Biologist

Date: 18 June 2013

Please submit one (1) copy electronically to:
mcrosby@gunnisoncounty.org

For assistance, please call (970) 641-0044.