



United States  
Department of  
Agriculture

January 21, 2009

Capitol Chapter, OHA

Marketing and  
Regulatory  
Programs

(b)(6)

Animal and  
Plant Health  
Inspection  
Service

Subject: Grant Proposal for Aerial Hunting in Eastern Oregon.

Dear Capitol Chapter OHA Board,

Wildlife  
Services

I want to thank the Capitol Chapter of OHA for approving a grant of \$1,000 and continuing to support the Wildlife Services aerial hunting activities in Eastern Oregon. We deeply appreciate the contributions we receive at the State and local levels of OHA. At this time your chapter can make a check in the amount of \$1,000 out to USDA-APHIS-Wildlife Services and mail it to my office address. We will use these funds from the Capitol Chapter of OHA to cover costs associated with our aerial hunting activities in Morrow County. As your chapter has requested, we will use the funds to fly in the Heppner Game Management Unit (GMU) or within 25 miles of the GMU boundary. We will fly approximately 6.6 hours @ \$150/hour.

Oregon State Office

6135 NE 80<sup>th</sup> Ave.  
Suite.A-8  
Portland, OR 97218  
(503) 326-2346

We are coordinating the use of your chapter's funds and funds from other OHA sources to conduct predator management in the GMU's that ODFW has identified for enhanced predator management to benefit game populations. Local ODFW biologists will be consulted with.

The Capitol OHA Chapter funds will be placed in a trust fund and we will draw from those funds to cover our flying expenses throughout the season.

In addition to this cover letter I am including a one page Cooperative Service Field Agreement (CSFA) for an OHA board member to sign. This document briefly lines out what we will do with the funds your chapter provides and serves as an accountability document. Please sign the document, retain the pink copy for your records and mail the other copies back to my office in the envelope I have provided.

Sincerely,

David E. Williams  
State Director

Encl:



Safeguarding American Agriculture  
APHIS is an agency of USDA's Marketing and Regulatory Programs  
An Equal Opportunity Provider and Employer

## WORK PLAN AND PROPOSED BUDGET

USDA, APHIS, WILDLIFE SERVICES  
and  
OREGON HUNTER'S ASSOCIATION (OHA)

### Introduction

In accordance with the Cooperative Service Agreement between Oregon Hunter's Association (OHA) and the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS), this Work Plan sets forth the objectives, activities and budget for the wildlife damage control project.

### Program Objectives

The objective of the wildlife damage control project is to conduct aerial hunting projects to manage predation on livestock that will provide incidental benefits to wildlife species in Eastern Oregon.

### Plan of Action

The objectives of the wildlife damage control program will be accomplished in the following manner:

1. APHIS-WS will provide an aircraft, a pilot/crew, ground crew, ammunition and supplies to conduct aerial hunting projects. Projects will be conducted in areas mutually identified by OHA and WS. Projects will be conducted on lands that WS has written agreements/permission to control coyotes.
2. The project will run from October 1, 2009 through September 30, 2010.
3. The WS State Office in Portland, Oregon will be responsible for day-to-day supervision and monitoring of the program.
4. APHIS-WS will provide reports on expenditures of OHA money and results of projects conducted with such funding.
5. APHIS-WS will cooperate with the Oregon Department of Agriculture (ODA), and the Oregon Department of Fish and Wildlife (ODFW), the U.S. Fish and Wildlife Service (FWS), county and local city governments and other entities to ensure compliance with Federal, State and local laws and regulations.

6. The performance of wildlife damage management actions by APHIS-WS under this agreement is contingent upon a determination by APHIS-WS that such actions are in compliance with the National Environmental Policy Act, Endangered Species Act, and any other applicable environmental statutes. APHIS-WS will not make a final decision to conduct requested wildlife damage management actions until it has made the determination of such compliance.
  
7. The Cooperator will provide APHIS-WS \$12,000 within 30 days of final signature to support this wildlife damage control project. OHA funds will be used to cost share aerial hunting expenses with livestock producers and the WS program. In accordance with Debt Collection Improvement Act (DCIA) of 1996, bills issued by APHIS-WS are due and payable within 30 days of receipt.

Proposed Budget Plan

Listed below are the costs associated with conducting this project:

Salary & Benefits of pilot/crew, ground crew,  
 Fuel & oil, maintenance and ammunition  
 @ a flat rate of \$150/hour.  
 Approximately 80 hours will be flown. \$12,000

TOTAL COSTS \$12,000

(b)(6) \_\_\_\_\_ 9/16/09  
 Representative  Date  
 Oregon Hunter's Association  
 Medford, Oregon

David E. Williams \_\_\_\_\_ 10/5/09  
 State Director Date  
 USDA, APHIS, Wildlife Services  
 Portland, Oregon

Bryce A. Jettans \_\_\_\_\_ 11/4/09  
 Regional Director Date  
 USDA, APHIS, Wildlife Services  
 Ft. Collins, Colorado

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2. The project will run from October 1, 2009 through September 30, 2010.
3. The WS State Office in Portland, Oregon will be responsible for day-to-day supervision and monitoring of the program.
4. APHIS-WS will provide reports on expenditures of OHA money and results of projects conducted with such funding.
5. APHIS-WS will cooperate with the Oregon Department of Agriculture (ODA), and the Oregon Department of Fish and Wildlife (ODFW), the U.S. Fish and Wildlife Service (FWS), county and local city governments and other entities to ensure compliance with Federal, State and local laws and regulations.

6. The performance of wildlife damage management actions by APHIS-WS under this agreement is contingent upon a determination by APHIS-WS that such actions are in compliance with the National Environmental Policy Act, Endangered Species Act, and any other applicable environmental statutes. APHIS-WS will not make a final decision to conduct requested wildlife damage management actions until it has made the determination of such compliance.
  
7. The Cooperator will provide APHIS-WS \$12,000 within 30 days of final signature to support this wildlife damage control project. OHA funds will be used to cost share aerial hunting expenses with livestock producers and the WS program. In accordance with Debt Collection Improvement Act (DCIA) of 1996, bills issued by APHIS-WS are due and payable within 30 days of receipt.

Proposed Budget Plan

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Salary & Benefits of pilot/crew, ground crew,  
 Fuel & oil, maintenance and ammunition  
 @ a flat rate of \$150/hour.  
 Approximately 80 hours will be flown. \$12,000

TOTAL COSTS \$12,000

(b)(6) \_\_\_\_\_ 9/16/09  
 Representative Date  
 Oregon Hunter's Association  
 Medford, Oregon

David E. Williams \_\_\_\_\_ 10/5/09  
 State Director Date  
 USDA, APHIS, Wildlife Services  
 Portland, Oregon

Jon Doug A. Jettauer \_\_\_\_\_ 11/4/09  
 Regional Director Date  
 USDA, APHIS, Wildlife Services  
 Ft. Collins, Colorado

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1. APHIS-WS will provide an aircraft, a pilot/crew, ground crew, ammunition and supplies to conduct aerial hunting projects. Projects will be conducted in areas mutually identified by OHA and WS. Projects will be conducted on lands that WS has written agreements/permission to control coyotes.
2. The project will run from October 1, 2008 through September 30, 2009.
3. The WS State Office in Portland, Oregon will be responsible for day-to-day supervision and monitoring of the program.
4. APHIS-WS will provide reports on expenditures of OHA money and results of projects conducted with such funding.
5. APHIS-WS will cooperate with the Oregon Department of Agriculture (ODA), and the Oregon Department of Fish and Wildlife (ODFW), the U.S. Fish and Wildlife Service (FWS), county and local city governments and other entities to ensure compliance with Federal, State and local laws and regulations.

6. The performance of wildlife damage management actions by APHIS-WS under this agreement is contingent upon a determination by APHIS-WS that such actions are in compliance with the National Environmental Policy Act, Endangered Species Act, and any other applicable environmental statutes. APHIS-WS will not make a final decision to conduct requested wildlife damage management actions until it has made the determination of such compliance.
7. The Cooperator will provide APHIS-WS \$15,000 within 30 days of final signature to support this wildlife damage control project. OHA funds will be used to cost share aerial hunting expenses with livestock producers and the WS program. In accordance with Debt Collection Improvement Act (DCIA) of 1996, bills issued by APHIS-WS are due and payable within 30 days of receipt.

Proposed Budget Plan

Listed below are the costs associated with conducting this project:

Salary & Benefits of pilot/crew, ground crew,  
 Fuel & oil, maintenance and ammunition  
 @ a flat rate of \$150/hour.  
 Approximately 100 hours will be flown. \$15,000

TOTAL COSTS \$15,000

(b)(6) \_\_\_\_\_ 12/30/08  
 Representative Date  
 Oregon Hunter's Association  
 Medford, Oregon

David E. Williams 1/5/09  
 State Director Date  
 USDA, APHIS, Wildlife Services  
 Portland, Oregon

[Signature] 1/26/09  
 Regional Director Date  
 USDA, APHIS, Wildlife Services  
 Ft. Collins, Colorado

## WORK PLAN AND PROPOSED BUDGET

### USDA, APHIS, WILDLIFE SERVICES and OREGON HUNTER'S ASSOCIATION (OHA)

#### Introduction

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The objective of the wildlife damage control project is to conduct aerial hunting projects to manage predation on livestock that will provide incidental benefits to wildlife species in Eastern Oregon.

#### Plan of Action

The objectives of the wildlife damage control program will be accomplished in the following manner:

1. APHIS-WS will provide an aircraft, a pilot/crew, ground crew, ammunition and supplies to conduct aerial hunting projects. Projects will be conducted in areas mutually identified by OHA and WS. Projects will be conducted on lands that WS has written agreements/permission to control coyotes.
2. The project will run from October 1, 2007 through September 30, 2008.
3. The WS State Office in Portland, Oregon will be responsible for day-to-day supervision and monitoring of the program.
4. APHIS-WS will provide reports on expenditures of OHA money and results of projects conducted with such funding.
5. APHIS-WS will cooperate with the Oregon Department of Agriculture (ODA), and the Oregon Department of Fish and Wildlife (ODFW), the U.S. Fish and Wildlife Service (FWS), county and local city governments and other entities to ensure compliance with Federal, State and local laws and regulations.

6. The performance of wildlife damage management actions by APHIS-WS under this agreement is contingent upon a determination by APHIS-WS that such actions are in compliance with the National Environmental Policy Act, Endangered Species Act, and any other applicable environmental statutes. APHIS-WS will not make a final decision to conduct requested wildlife damage management actions until it has made the determination of such compliance.
7. The Cooperator will provide APHIS-WS \$12,000 within 30 days of final signature to support this wildlife damage control project. OHA funds will be used to cost share aerial hunting expenses with livestock producers and the WS program. In accordance with Debt Collection Improvement Act (DCIA) of 1996, bills issued by APHIS-WS are due and payable within 30 days of receipt.

Proposed Budget Plan

Listed below are the costs associated with conducting this project:

Salary & Benefits of pilot/crew, ground crew,  
 Fuel & oil, maintenance and ammunition  
 @ a flat rate of \$150/hour.

Approximately 80 hours will be flown. \$12,000

TOTAL COSTS \$12,000

(b)(6)  
 \_\_\_\_\_  
 representative  
 Oregon Hunter's Association  
 Medford, Oregon

11/27/07  
 \_\_\_\_\_  
 Date

*David E. Williams*  
 \_\_\_\_\_  
 State Director  
 USDA, APHIS, Wildlife Services  
 Portland, Oregon

11/30/07  
 \_\_\_\_\_  
 Date

*Doug A. Spittauer*  
 \_\_\_\_\_  
 Regional Director  
 USDA, APHIS, Wildlife Services  
 Ft. Collins, Colorado

12/21/07  
 \_\_\_\_\_  
 Date



United States  
Department of  
Agriculture

Oregon Hunter's Association  
P.O. Box 1706  
Medford, OR 97501

November 22, 2006

Marketing and  
Regulatory  
Programs

Subject: Grant Awarded to USDA-APHIS-Wildlife Services

Animal and  
Plant Health  
Inspection  
Service

Dear (b)(6)

Enclosed you will find a fully executed copy of the annual work plan document outlining the use of OHA funds for aerial hunting during 2006-2007. For your information we did not send a copy to OHA (b)(6)

Wildlife  
Services

Thank you for your payment of \$10,000 we received previously.

Oregon State Office

6135 NE 80<sup>th</sup> Ave.  
Suite A-8  
Portland, OR 97218  
(503) 326-2346

Sincerely,

David E. Williams  
State Director

Encl:



Safeguarding American Agriculture  
APHIS is an agency of USDA's Marketing and Regulatory Programs

An Equal Opportunity Provider and Employer

WORK PLAN AND PROPOSED BUDGET  
USDA, APHIS, WILDLIFE SERVICES  
and  
OREGON HUNTER'S ASSOCIATION (OHA)

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1. APHIS-WS will provide an aircraft, a pilot/crew, ground crew, ammunition and supplies to conduct aerial hunting projects. Projects will be conducted in areas mutually identified by OHA and WS. Projects will be conducted on lands that WS has written agreements/permission to control coyotes.
2. The project will run from October 1, 2006 through September 30, 2007.
3. The WS State Office in Portland, Oregon will be responsible for day-to-day supervision and monitoring of the program.
4. APHIS-WS will provide reports on expenditures of OHA money and results of projects conducted with such funding.
5. APHIS-WS will cooperate with the Oregon Department of Agriculture (ODA), and the Oregon Department of Fish and Wildlife (ODFW), the U.S. Fish and Wildlife Service (FWS), county and local city governments and other entities to ensure compliance with Federal, State and local laws and regulations.

6. The performance of wildlife damage management actions by APHIS-WS under this agreement is contingent upon a determination by APHIS-WS that such actions are in compliance with the National Environmental Policy Act, Endangered Species Act, and any other applicable environmental statutes. APHIS-WS will not make a final decision to conduct requested wildlife damage management actions until it has made the determination of such compliance.
7. The Cooperator will provide APHIS-WS \$10,000 by a mutually agreed upon date to support this wildlife damage control project. OHA funds will be used to cost share aerial hunting expenses with livestock producers and the WS program.

Proposed Budget Plan

Listed below are the costs associated with conducting this project:

Salary & Benefits of pilot/crew, ground crew,  
 Fuel & oil, maintenance and ammunition  
 @ a flat rate of \$100/hour.  
 Approximately 100 hours will be flown. \$10,000

TOTAL COSTS \$10,000

(b)(6)

Representative  
 Oregon Hunter's Association  
 Medford, Oregon

10/17/06  
 Date

David E. Williams  
 State Director  
 USDA, APHIS, Wildlife Services  
 Portland, Oregon

10/23/06  
 Date

Ray A. Jettam  
 Regional Director  
 USDA, APHIS, Wildlife Services  
 Ft. Collins, Colorado

11/3/06  
 Date



December 7, 2005

Oregon Hunter's Association

United States  
Department of  
Agriculture

Marketing and  
Regulatory  
Programs

(b)(6)

Animal and  
Plant Health  
Inspection  
Service

Dear (b)(6)

Wildlife  
Services

Attached is a fully executed copy of the Work Plan/Proposed Budget between USDA, APHIS, Wildlife Services and Oregon Hunter's Association for the year beginning November 1, 2005. I have sent a fully executed copy with original signatures to the OHA Office in Medford.

Oregon State Office

Thank you for your payment. If you have any questions, please call me at 503-326-2346.

6135 NE 80<sup>th</sup> Ave.  
Suite A-8  
Portland, OR 97218  
(503) 326-2346

Sincerely,

Christina Rayls  
Budget Analyst

Enclosure



Safeguarding American Agriculture  
APHIS is an agency of USDA's Marketing and Regulatory Programs

An Equal Opportunity Provider and Employer



United States  
Department of  
Agriculture

December 7, 2005

Marketing and  
Regulatory  
Programs

Oregon Hunter's Association  
P.O. Box 1706  
Medford, OR 97501

Animal and  
Plant Health  
Inspection  
Service

Dear OHA Board of Directors,

Wildlife  
Services

Attached is a fully executed copy of the Work Plan/Proposed Budget between USDA, APHIS, Wildlife Services and Oregon Hunter's Association for the year beginning November 1, 2005. I have sent a copy of this document to (b)(5) as well.

Oregon State Office

Thank you for your payment. If you have any questions, please call me at 503-326-2346.

6135 NE 80<sup>th</sup> Ave.  
Suite A-8  
Portland, OR 97218  
(503) 326-2346

Sincerely,

Christina Rayls  
Budget Analyst

Enclosure



Safeguarding American Agriculture  
APHIS is an agency of USDA's Marketing and Regulatory Programs

An Equal Opportunity Provider and Employer



RECEIVED  
NOV 04 2005

October 4, 2005

United States  
Department of  
Agriculture

(b)(6)

Marketing and  
Regulatory  
Programs

Subject: -OHA Grant For Aerial Hunting

Animal and  
Plant Health  
Inspection  
Service

(b)(6)

Wildlife  
Services

Oregon State Office

3135 NE 80<sup>th</sup> Ave.  
Suite A-8  
Portland, OR 97218  
503) 326-2346

I have contacted (b)(6) the Medford OHA office to coordinate the disbursement of funds from the grant awarded to Wildlife Services for aerial hunting. She in turn referred me on to you to have you sign the enclosed annual work plan (4 copies) since you serve as Chair of the Grant Committee for OHA. The Work Plan between our organizations is paperwork that my agency requires in order for us to be accountable to OHA and the public. I need you to sign all 4 copies and return them to my office. A fully executed copy will be returned to you for your records.

The Work Plan does not obligate either party anything over or above what is outlined in the grant. I sure appreciate the support that OHA is providing to our predator management program. If you have questions please do not hesitate to call me or e-mail me.

Sincerely,

David E. Williams  
State Director

(b)(6) OHA Medford

Encl:

Thanks Dave

(b)(6)



## WORK PLAN AND PROPOSED BUDGET

### USDA, APHIS, WILDLIFE SERVICES and OREGON HUNTER'S ASSOCIATION (OHA)

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2. The project will run from November 1, 2005 through June 30, 2006.
3. The WS State Office in Portland, Oregon will be responsible for day-to-day supervision and monitoring of the program.
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5. APHIS-WS will cooperate with the Oregon Department of Agriculture (ODA), and the Oregon Department of Fish and Wildlife (ODFW), the U.S. Fish and Wildlife Service (FWS), county and local city governments and other entities to ensure compliance with Federal, State and local laws and regulations.

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 Fuel & oil, maintenance and ammunition  
 @ a flat rate of \$100/hour.  
 Approximately 100 hours will be flown. \$10,000

TOTAL COSTS \$10,000

(b)(6)

Representative  
 Oregon Hunter's Association  
 Medford, Oregon

10/21/05  
 Date

David L. Williams  
 State Director  
 USDA, APHIS, Wildlife Services  
 Portland, Oregon

11/4/05  
 Date

Jeffrey Green  
 Regional Director  
 USDA, APHIS, Wildlife Services  
 Ft. Collins, Colorado

12/1/05  
 Date



# OREGON HUNTERS ASSOCIATION

Helping Wildlife • Enhancing Habitat • Protecting Our Hunting Heritage

RECEIVED  
SEP 26 2005

David Williams  
USDA-APHIS-Wildlife Services  
6135 NE 80th, Suite A-8  
Portland, OR 97218

September 21, 2005

Thank you for your grant application and project proposal titled Incidental Benefits of Livestock Predation Management for Wildlife Species. We are pleased to inform you that your application has been approved in the amount of \$10,000.

For funds disbursement, please contact (b)(6) the OHA office at (541) 772-7313.

Congratulations!

(b)(6)



## WORK PLAN AND PROPOSED BUDGET

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3. The WS State Office in Portland, Oregon will be responsible for day-to-day supervision and monitoring of the program.
4. APHIS-WS will provide reports on expenditures of OHA money and results of projects conducted with such funding.
5. APHIS-WS will cooperate with the Oregon Department of Agriculture (ODA), and the Oregon Department of Fish and Wildlife (ODFW), the U.S. Fish and Wildlife Service (FWS), county and local city governments and other entities to ensure compliance with Federal, State and local laws and regulations.

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Salary & Benefits of pilot/crew, ground crew, Fuel & oil, maintenance and ammunition @ a flat rate of \$100/hour. Approximately 100 hours will be flown.	\$10,000
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TOTAL COSTS	\$10,000
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\_\_\_\_\_  
 Representative  
 Oregon Hunter's Association  
 Medford, Oregon

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 State Director  
 USDA, APHIS, Wildlife Services  
 Portland, Oregon

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Regional Director  
 USDA, APHIS, Wildlife Services  
 Ft. Collins, Colorado

\_\_\_\_\_  
 Date

WORK PLAN AND PROPOSED BUDGET  
USDA, APHIS, WILDLIFE SERVICES  
and  
OREGON HUNTER'S ASSOCIATION (OHA)

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1. APHIS-WS will provide an aircraft, a pilot/crew, ground crew, ammunition and supplies to conduct aerial hunting projects. Projects will be conducted in areas mutually identified by OHA and WS. Projects will be conducted on lands that WS has written agreements/permission to control coyotes.
2. The project will run from November 26, 2003 through June 30, 2004.
3. The WS State Office in Portland, Oregon will be responsible for day-to-day supervision and monitoring of the program.
4. APHIS-WS will provide reports on expenditures of OHA money and results of projects conducted with such funding.
5. APHIS-WS will cooperate with the Oregon Department of Agriculture (ODA), and the Oregon Department of Fish and Wildlife (ODFW), the U.S. Fish and Wildlife Service (FWS), county and local city governments and other entities to ensure compliance with Federal, State and local laws and regulations.





# OREGON HUNTERS ASSOCIATION

P.O. BOX 1706 • Medford, OR 97501-0252 • (541) 772-7313 • FAX (541) 772-0964

OHA website: [www.oregonhunters.org](http://www.oregonhunters.org) • e-mail address: [oha@ccountry.net](mailto:oha@ccountry.net)

David E. Williams  
USDA-APHIS-Wildlife Services  
6135 NE 80th Avenue, Suite A8  
Portland, OR 97218

7-23-03  
JUL 23 2003

July 23, 2003

Thank you for your grant application and project proposal titled Incidental Benefits of Livestock Predation Management for Wildlife Species. We are pleased to inform you that your application has been approved in the amount of \$15,000.

For funds disbursement, please contact (b)(6) at the OHA office at (541) 772-7313.

Congratulations!

File OHA



# OREGON HUNTERS ASSOCIATION

P.O. BOX 1706 • Medford, OR 97501-0252 • (541) 772-7313 • FAX (541) 772-0964

OHA website: [www.oregonhunters.org](http://www.oregonhunters.org) • e-mail address: [oha@ccountry.net](mailto:oha@ccountry.net)

RECEIVED  
DEC 18 2002

David Williamson, State Director  
USDA-APHIS-Wildlife Services  
6135 NE 80th Avenue, Suite A8  
Portland, OR 97218

December 13, 2002

Thank you for your grant application and project proposal titled Incidental Benefits of Livestock Predation Management for Wildlife Species. We are pleased to inform you that your application has been accepted.

For funds disbursal, please contact the OHA office at (541) 772-7313.

Congratulations!

We wish you the best of luck in your future endeavors.

10-22-2009

David E Williams  
State Director - Oregon  
USDA - APHIS - Wildlife Services  
6135 NE 80<sup>th</sup>, Suite A-8  
Portland, OR 97218

RECEIVED  
OCT 27 2009

---

David,

Enclosed is a check from Redmond  
Chapter of Oregon Hunters Association to  
be used for aerial hunting on

(b)(6)

Sincerely,

(b)(6)

RECEIVED  
OCT 14 2009

COOPERATIVE SERVICE FIELD AGREEMENT  
between  
Josephine Chapter OHA (Cooperator)  
and  
UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE  
WILDLIFE SERVICES

ARTICLE 1

The purpose of this agreement is to cooperate in a wildlife damage management project as described below:

Cost Share Coyote predation management in Eastern Oregon for the mutual benefit of wildlife species and livestock

EPA Registration No. (If applicable) \_\_\_\_\_

ARTICLE 2

APHIS WS has statutory authority under the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C.426-426b) as amended, and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c), for the Secretary of Agriculture to cooperate with States, individuals, public and private agencies, organizations, and institutions in the control of wild mammals and birds that are reservoirs for zoonotic diseases, or are injurious or a nuisance to, among other things, agriculture, horticulture, forestry, animal husbandry, wildlife, and public health and safety.

ARTICLE 3

APHIS-WS and the Cooperator agree:

1. APHIS-WS will provide the requested wildlife damage management service;
2. The Cooperator will provide the U.S. Department of Agriculture the sum of \$ 2,000 to cover the costs listed below:

aerial hunting @ \$150/hour

3. Payment will be made by check payable to U.S. Department of Agriculture by mutually agreed upon date.
4. The monies received by APHIS-WS will be used for wildlife damage control activities and upon termination of the agreement any unexpended funds will be retained by APHIS-WS and used on similar program activities.
5. The performance of WDM actions by APHIS-WS under this Agreement is contingent upon a determination by APHIS-WS that such actions are in compliance with the National Environmental Policy Act, Endangered Species Act, and any other applicable environmental statutes. APHIS-WS will not make a final decision to conduct requested WDM actions until it has made the determination of such compliance.
6. Nothing in this Agreement shall prevent any other individual or organization from entering into separate Agreements with APHIS-WS for the purpose of controlling wildlife damage.
7. That APHIS-WS has advised the Cooperator that other private sector service providers may be available to provide wildlife management services and notwithstanding these other options, Cooperator requests that APHIS-WS provide wildlife management services as stated under the terms of this Agreement.

ARTICLE 4

This Agreement is contingent upon the passage by Congress of an appropriation from which expenditures may be legally met and shall not obligate the requisitioning agency upon failure of Congress to so appropriate. This Agreement also may be reduced or terminated if Congress only provides the Agency funds for a finite period under a Continuing Resolution.

ARTICLE 5

Pursuant to Section 22, Title 41, United States Code, no member of or delegate to Congress shall be admitted to any share or part of this Agreement or to any benefit to arise there from.

ARTICLE 6

APHIS assumes no liability for any actions or activities conducted under this agreement except to the extent the recourse or remedies are provided by Congress under the Federal Tort Claims Act (28 USC 1346(b), 2401(b), 2671-2680).

All WDM activities will be conducted in accordance with applicable Federal, State, and local laws and regulations.

This Agreement shall become effective \_\_\_\_\_, 20\_\_\_\_, and shall continue through \_\_\_\_\_, 20\_\_\_\_ or until completion of project, not to exceed one year. This agreement may be amended or terminated at any time by mutual agreement of the parties in writing. Further, in the event the Cooperator does not, for any reason, deposit necessary funds, APHIS-WS is relieved of the obligation to provide services under this Agreement.

Cooperator Name, Address and Phone Number

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Cooperator's Federal Tax Identification Number

Certified Pesticide License No.  
(Required for all restricted use pesticide sales)

(b)(6)

7-23-09  
Date

USDA APHIS, Wildlife Services  
Dave Williams  
6135 NE 80<sup>th</sup>, Suite A-8  
Portland, OR 97218  
503.326.2346

WS Representative Signature

Date

Dave Williams 9/18/09  
State Director's Signature Date



(b)(6)

To: <David.E.Williams@aphis.usda.gov>

cc:

Subject: Re: aerial hunting grant

06/14/2004 11:28 AM

Hi Dave,

Good to hear from you.

Our summer board meeting is on July 17 in Redmond. The Board adopted new grant application procedures and reviews these in March and September. For September, grant applications must be submitted by August 1 with a Chapter review and recommendation and Board member review and recommendation. The complete policy, procedure and grant application is on our web site [www.oregonhunters.org](http://www.oregonhunters.org). If you can't pull it off the web site let me know.

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and

sets the board meeting

agenda.

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yanoo.com

If you have any questions, please call or email me.

(b)(6)

Oregon Hunters Association  
Office: 541-772-7313

(b)(6)

----- Original message -----  
From: <David.E.Williams@aphis.usda.gov>  
To: (b)(6) <country.net>  
Sent: Thursday, June 10, 2004 1:04 PM  
Subject: aerial hunting grant

(b)(6)

- > How are things?
- >
- > It is getting towards the end of our aerial hunting season and soon we will
- > be compiling information to report to OHA. Then I hope to be able to
- > report results to the OHA Board as we have in the past during your summer
- > meeting. When is your summer Board meeting and is it possible for us to
- > make a presentation and request a renewal of our grant?
- >
- > Can you provide me with an electronic version of the OHA grant application
- > or direct me to where I can get one?
- >
- > If you want to discuss how our use of OHA funds or have some questions,
- > please don't hesitate to call me, (503) 326-2346.
- >
- > We really appreciate the support that OHA has provided at the State and
- > local chapter levels and look forward to a continued working relationship
- > with OHA. We are pleased to deliver a service that mutually benefits
- > sportsmen and ranchers.
- >
- > Dave Williams

**OREGON HUNTER'S ASSOCIATION**  
Project Proposal and Grant Application

Summary Page

1. Project Title: Incidental Benefits of Livestock Predation Management for Wildlife Species.

2. Applicant: USDA-APHIS-Wildlife Services

Address: 6135 NE 80<sup>th</sup> Avenue, Suite A8

City/State/ZIP: Portland, OR 97218 Telephone: (503) 326-2346

Signature: David E. Williams Title: State Director Date: 06/08/02

3. Project Location: Eastern Oregon Public and Private Land

County: \_\_\_\_\_ Township, Range, Section (s): \_\_\_\_\_

Oregon Dept of Fish & Wildlife Region or District: \_\_\_\_\_

4. Type of Project:

Wildlife Management: X Habitat Improvement: \_\_\_\_\_ Hunter Education: \_\_\_\_\_  
Other: \_\_\_\_\_

5. Proposed Start Date: January 2003

6. Estimated Total Cost for Project: \$ 138.00/Hr

7. OHA Funding Requested: \$ 138.00/Hr

8. OHA Volunteer Hours Proposed: \_\_\_\_\_

9. Briefly explain the purpose of the project: *Conduct aerial hunting of coyotes to protect livestock in areas where ODFW has identified coyotes as the reason game management objectives have not been met, or conduct aerial hunting of coyotes for the incidental benefits to game species. ODFW can request USDA-APHIS-Wildlife Services to help reduce predation on game populations.*

10. Complete and attach proposed project detail pages, and include additional maps, photos etc. as needed.

Applications may be addressed to local OHA Chapters or to the OHA State Office.

Oregon Hunter's Association

Attn: \_\_\_\_\_

P.O. Box 1706

Medford, OR 97501

# OREGON HUNTER'S ASSOCIATION

## PROJECT PROPOSAL AND GRANT APPLICATION

### Project Detail

Project Title: Incidental Benefits of Livestock Predation Management for Wildlife Species

#### 1. Background:

Locally in Eastern Oregon, ODFW Biologists and sportsmen are concerned over the decline of deer and pronghorn antelope. Where predation is suspected to be a contributing factor, predation management can be a beneficial wildlife management tool when selectively and strategically applied. Aerial hunting of coyotes can be a very selective coyote removal tool that USDA-APHIS-Wildlife Services can use to address predation.

Predation is a naturally occurring phenomenon. There is abundant evidence that predator and prey numbers fluctuate in healthy ecosystems and that the number of either is unlikely to become so low or so high as to warrant concern (e.g., Errington 1967). However, there also are many instances in which ecosystem health has been negatively affected by weather, fire, human disturbance, removal of top predators, introduction of exotic flora or fauna, etc. In these circumstances, predators may have significant negative impacts on prey (Hecht and Nickerson 1999) and populations of the latter may be driven sufficiently low to draw the attention of managers, and, ultimately, the expenditure of public and private funds. One tool that can be implemented to benefit threatened prey species and to improve the recruitment of younger individuals into the population is predation management.

**Management to improve fawn survival.**—Both mule deer (*Odocoileus hemionus*) and pronghorn (*Antilocapra americanus*) fawn survival can be increased by management actions that decrease predation by coyotes (e.g., Hailey 1979, Knowlton 1976). For the latter, predation of unprotected fawns can approach 90%, although factors such as alternative prey, age structure of the coyote population and synchrony of fawning all play a factor (Dunbar et al. 1999, Byers 1997).

When predation management programs are implemented, pronghorn fawn survival and the recruitment of young individuals into the adult population can increase dramatically. Smith et al. (1986) noted that predation management could result in 100% annual increases in population size. In general, management activities that remove coyotes after breeding territories are established but prior to fawning can double fawning success.

Similarly, mule deer fawn survival can be increased when coyote populations are seasonally suppressed in fawning habitat. In Utah, coyote predation management was applied to deer hunt units where populations were depressed (<50% of herd objectives specified by the Utah Department of Wildlife Resources), fawn recruitment was low (<50 fawns:100 does) and the population trend was stable to declining (Utah Division of Wildlife Resources 1996). In one such unit, fawn survival increased from 9% to 42% when predation management was implemented. In another, fawn survival increased from 30.75 fawns:100 does to 51:100. In a third, fawn survival increased from 50:100 to 64:100 as a result of coyote management efforts.

**Management to protect endangered species.**--Bighorn sheep (*Ovis canadensis*) are affected by lions throughout their range. In California, lion predation has resulted in the emergency listing of this species, to allow for lion predation management. Restoration of bighorn sheep in Utah has been limited by lion predation, and removal of lions is believed to be instrumental to the success of restored populations (Utah Division of Wildlife Resources 1996).

Black-footed ferret (*Mustela nigripes*) populations are severely impacted by coyote predation, especially following restoration efforts (Utah Division of Wildlife Resources 1995). In studies of restoration success in South Dakota, 30 day survival rates averaged 31 % in the absence of predation management, but 67.5 % with predation management in place. Based upon an introduction of 50 ferrets, the difference in survival with and without predation management, and using an average individual value of \$29,132 (Table 5), 18 ferrets would be saved with predation management producing \$524,376 in financial benefit. Perhaps more significant, since nearly all of the ferret survival occurred in the presence of predation management, the success of the entire restoration effort arguably could be said to hinge on the application of this one management tool.

**Management to protect upland birds and nesting waterfowl.**--Upland game bird populations may be affected by predation, including direct predation of chicks and adults as well as nest predation. Again, while predation may be a natural phenomena, several species have been shown to be negatively impacted. In one population of sage grouse in Utah, annual adult mortality due to predation (primarily non-native red fox) was 82% without fox control in place while only 33% with fox control (Bunnell and Flinders 1999). Grouse nests are also predated. Ten of 19 (53%) sage grouse nests on the Parker Mountain in Utah were destroyed by ravens (T. A. Messmer, pers. commun.). In an artificial nest predation study in Idaho sage grouse habitat, 28% of the nests placed in a predator control area were destroyed while 98% were destroyed in an adjacent no control area (Collinge and Maycock, 2000).

In two study sites in southern Utah, pheasant (*Phasianus colchicus*) populations doubled in treatment (predator removal) areas relative to nearby no-treatment areas. In northern Utah, a similar study increased pheasant populations on areas with good pheasant habitat, but an overall increase was not noted (Frey et al. 2000). The conditional nature of the northern Utah result was attributed to the small size of the study plots involved, and the amount of pheasant habitat available for treatment.

Production by nesting waterfowl also can be improved by predation management. Adult survival during the nesting season also can be improved. Red fox alone are reported to kill 18% of the nesting hen mallards in North Dakota annually, and kill an estimated 900,000 adult ducks (predominantly hens) each year in the prairie pothole region. In a predator removal demonstration project, nest success in the treatment (predator removal) site was 71% while nest success on the no treatment site was 14%. The difference was compounded by the treatment site containing 166% more nests than the no treatment site, which could indicate that predation management can lead to increased productivity due to nest site selection by duck pairs as well as decreasing actual predation. Numerically, 178 nests successfully hatched on the treatment site, compared to only 21 nests on the no treatment site, an 847% increase in total nest productivity. Cost for the treatment was \$2.00/acre, assuming the benefits extended only to the treatment site itself. If the benefit of predator removal extended outside of the treatment area 2 miles, costs dropped to \$0.48/acre (Jones 1994).

## Case Studies of Big Game Protection

The present discussion focuses on the cost of conventional predation management and the effect applications of these methods have on wildlife numbers. Much of the best available data has been generated in Utah; a series of case studies is presented below. Each of the areas discussed is a big game management unit that was selected by the Utah Division of Wildlife Resources for predation management activity. Selection highlights an important caveat which, although previously stated, is worth reiteration here. Specifically, the timing of predation management, habitat characteristics, game abundance relative to carrying capacity, and a variety of other factors can and do influence game populations. Like any wildlife management tool, managers must select methods carefully so that the critical features limiting recruitment are addressed.

**Henry Mountains mule deer.**—Using aerial hunting of coyotes from fixed and rotary wing aircraft and coyote removals by ground personnel, the cost of fawn protection from coyotes was \$6.96 per square mile treated in 1997 and \$8.69 per square mile in 1998. Overall, the cumulative cost for two years of fawn protection in this unit was \$15,841. Recruitment was improved substantially; herd size increased by 600 animals, reversing a 5 year decline (Bodenchuk 1999). The civil value assigned to mule deer is \$300. Accordingly, the net benefit for two years work was \$180,000, permitting calculation of a benefit:cost ratio of 11.4:1.

**Bookcliffs mule deer.**—Intensive aerial hunting of coyotes on fawning grounds cost \$11,100 in 1997, or \$66.87 per square mile. Recruitment improved substantially, and herd size increased by 667 animals (Bodenchuk 1999). Accordingly, the net benefit was \$200,100. The benefit:cost ratio for this project area was 18:1.

**Pahvant mule deer.**—Using aerial hunting and coyote removals by ground personnel, three years of deer fawn protection cost \$27,480 and resulted in an estimated increase of 2,073 fawns worth \$621,900 (Bodenchuk 1999). The benefit:cost ratio of this project was 22.6:1.

**Pronghorn.**—Pronghorn protection has been extensively evaluated (much more so than mule deer) and is nearly always considered to be cost beneficial. For example, Smith et al. (1986) evaluated the benefit:cost of predation management using the cost of pronghorn permits plus estimated hunter expenditures. A management schedule that involved the removal of territorial coyotes every other year yielded the greatest return, a benefit:cost ratio of 1.92:1. Depending on herd size, Smith et al. (1986) argued that benefits in the range of between 2:1 and 3:1 could be expected.

Overall, then, the range of benefit:cost ratios for predation management to protect wildlife ranged between 2:1 and 22.6:1. In FY 1998, Wildlife Services programs in the Western Region spent \$2,936,068 (federal and cooperative combined) on this activity. Accordingly, the benefits of Wildlife Services predation management to protect wildlife ranged between \$5,872,136 to \$66,355,137.

## Incidental Benefits of Predation Management for Livestock Protection to Wildlife

The examples above lead to the conclusion that predation management can be a beneficial wildlife management tool when selectively and strategically applied. Since wildlife in crisis often co-exist with livestock in many areas of the West, predation management for livestock protection may have significant consequences for wildlife species in the treatment areas. The degree of incidental benefit may depend on the timing and intensity of management efforts. Several case studies follow to illustrate this point.

In Utah, five deer management units received intensive coyote control for domestic sheep grazing on summer range (fawning range for the deer). Despite a severe winter loss in 1992 - 93, these units averaged 74.4% of the Utah Division of Wildlife Resource's deer herd objective in 1995, an average increase in herd size of 6.4% over 1994 numbers. Three other deer management units received intensive coyote control for winter sheep grazing (winter range for the deer herd) and in 1995 averaged 50.3% of objective and were increased at an average of 2.3% over 1994 numbers. Finally, nine deer units received no predation management efforts by WS during the period. These units averaged 39.7% of objective and were decreased at an average of 1.1% from 1994 numbers.

In Texas, intensive coyote control for sheep and goat protection may be one cause of high deer survival and densities on the Edward's Plateau. Whether these densities are biologically good or bad depends on the degree to which deer management is concurrently applied. Unchecked deer populations overuse the available forage and that in turn may argue against predation management in certain areas. This final point highlights the fact that predation management can have negative effects on other species of wildlife (Kie et al. 1979).

## 2. Project Objective:

### a. What is the objective of the project?

- OHA funds will help restore some of the aerial hunting hours that Wildlife Services will have to cut due to a cut in funds from the Oregon Department of Agriculture (\$90,000 in the last year of the biennium). Since wildlife in crisis often co-exist with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in the treatment areas. Last year Wildlife Services removed 5993 coyotes in eastern Oregon. Sixty percent (3055) were taken with our aerial hunting program (**\*see attached charts and graphs illustrating coyote take by method overall and by county**). Wildlife Services has evaluated the benefit:cost ratio of coyote control to protect game species and has found predation management activities to protect wildlife show benefit:cost ratios ranging from 2:1 to 22:1.

### b. How will the project benefit wildlife management and/or habitat improvement?

- In areas where ODFW Biologists have determined that predation is the cause for herd management objectives not being met they can request Wildlife Services to conduct aerial hunting to control coyotes. In areas where ODFW Biologists suspect predators of causing additive mortality, the removal of coyotes to protect livestock may have a beneficial affect on game populations. Coordination with local ODFW Biologists will help determine where benefits to both game and livestock may be realized when aerial hunting of coyotes is conducted.

## Project Location:

-Wildlife Services is able to conduct aerial hunting of coyotes wherever ODFW wants to conduct coyote control to meet game management objectives or wherever livestock are legally present and experiencing predation or threats of predation. This includes private and public lands. Project would be coordinated with local ODFW Biologists, local land managers, and local OHA chapters throughout eastern Oregon.

**OREGON HUNTER'S ASSOCIATION**  
Project Proposal and Grant Application

Project Detail (Continued)

**Project procedure:** (Specifically describe how the project will be conducted – use separate pages for additional information, drawings or pictures.)

*Areas where game species could benefit by reducing coyote predation on young will be identified jointly by ODFW District Biologist, Federal land and wildlife managers, OHA, and USDA-APHIS-WS. OHA funds will be used to support aerial hunting of coyotes and coyote dens.*

**Permits, Inter-Agency Coordination:** (Have all necessary permits been secured or applied for? Has all inter-agency coordination and approvals been initiated or secured?)

- *USDA-APHIS-Wildlife Services maintains close coordination with ODFW, ODA, U.S. Forest Service, U.S. Bureau of Land Management, U.S. Fish and Wildlife and Indian Tribes.*
- *NEPA requirements have been met to allow Wildlife Services to work on private and public lands.*
- *USDA-APHIS-Wildlife Services has authority to shoot coyotes and feral pigs from aircraft.*

**Project Schedule:**

a. Start Date: January 2003 Completion Date: June 30, 2003

b. List major project activities and time schedule for each.

<u>Activity</u>	<u>Time (Month/Year)</u>
- Aerial hunting of coyotes removing coyotes and locating dens for removal.	Coyote breeding season through fawning and kidding season

**OREGON HUNTER'S ASSOCIATION**  
Project Proposal and Grant Application

Project Detail (Continued)

**Participation:** (What organizations will participate in the project? List and describe the participation, and attach letters of commitment or verification of other grant awards to be involved in this project. You do not need to include individuals.)

<u>Participant</u>	<u>Activity</u>
ODFW	- Identify areas where predator control would-benefit wildlife.
OHA	- Assist in local coordination of aerial hunting.
BLM, USFS, USFWS	- Identify areas of Federal lands where project can be carried out.
USDA/ APHIS/ WS	- conduct and report on aerial hunting operations and results.

**Funding:**

- a. List other sources and amount of project funds (include in budget on page 5).

*USDA/APHIS/WS aerial hunting program is funded entirely with federally appropriated money (approx. \$115,000 / yr). Because of potential cuts in state funding from Oregon Department of Agriculture (\$90,000 / yr), federal dollars will be shifted from supporting aerial hunting to support personnel expenses through out the program.*

- b. Have any conditions been placed on funds listed in "a." above, which may affect the completion of the project? If so, identify and explain.

*No, what ever OHA provides will be used as agreed upon.*

**Project Maintenance and Monitoring:**

- a. Who will maintain the project and fund long-term maintenance and/or operation, if needed?

*USDA/APHIS/WS, contingent on federal, state and county funding.*

- b. What element(s) of the project will be monitored, how often, for how long?

*- Aerial hunting activities will be monitored annually for NEPA compliance.*

*- Annual reports will be provided to OHA and updates on project will be provided as desired by OHA.*

# OREGON HUNTER'S ASSOCIATION

## PROJECT PROPOSAL AND GRANT APPLICATION

### Project Detail (Continued)

Project Cost Estimate:

Category	OHA Funds	Other Funds	Total Cost	Remarks
Administration (Itemize)				
Construction Materials (Itemize)				
Supplies (Itemize)				
Contract Services (Itemize)	\$138 / Hr			
Pilot & Gunner				
fuel & oil				
ammunition				
Equipment (Itemize)				
<b>Total Cost</b>	<b>\$138 / Hr</b>			



Oregon Hunter's Association  
P.O. Box 1706  
Medford, OR 97501

June 30, 2003

Dear Board of Directors:

Enclosed you will find a proposal to renew the grant Wildlife Services (WS) received this past year from the Oregon Hunter's Association (OHA). I am requesting an increase from \$15,000 to \$20,000 to help support our aerial hunting program from November 2003 in to July 2004. This year, the OHA money was matched nearly 1:1 with private rancher/landowner money to support aerial hunting activities that would not have occurred because of State funding cuts. This new cooperatively funded program was very successful despite it being a radical departure from the traditional program fully funded with federal dollars. On top of that, it was an unusually mild winter that didn't drive the coyotes out of the timber until late in the aerial hunting season.

This year we will drop the hourly rate from \$138/hour to \$100/hour in an effort to attract even more matching private rancher/landowner money, which will support a greater number of aerial hunting hours. Aerial hunting activities will continue to be coordinated with local ODFW Biologists, OHA representatives, and landowners/managers. It is our hope that we can expand on the success we had this past year and use an increase in OHA and private rancher/landowner money to benefit livestock, wildlife species and hunter/landowner relationships. OHA money will continue to be used on private and public land to protect livestock and incidentally benefit wildlife or we could specifically fly for game protection and enhancement as described in the grant application.

The application explains how predator management can in certain situations be very effective in enhancing game populations while being cost effective. Aerial hunting is the principal tool that WS uses to address predation management to protect game herds in cooperation with various state and federal agencies. It is a very selective and effective tool that has been documented to help wildlife agencies enhance game populations.

We will submit a project completion report and develop a presentation for OHA in the very near future. A preliminary look at this year's project data indicates that we took 917 coyotes and located 49 coyote dens in 194.7 hours of flying. The 194.7 hours were funded by OHA and private rancher/landowner money and federal funds paid for approximately 76 hours of ferry flight time.

I look forward to discussing this year's accomplishments and presenting next year's grant proposal at your July 19, 2003 meeting in Redmond, Oregon.

David E. Williams  
State Director

ENCL:

(b)(6) OHA

OREGON HUNTER'S ASSOCIATION

PROJECT PROPOSAL AND GRANT APPLICATION

Summary Page

Incidental Benefits of Livestock Predation Management

1. Project Title: for Wildlife Species

2. Applicant: USDA-APHIS-Wildlife Services

Address: 6135 NE 80th Avenue, Suite A8

City/State/ZIP: Portland, OR 97218 Telephone: (503) 326-2346

Signature: \_\_\_\_\_ Title: State Director Date: 06 / 29 / 03

3. Project Location: Eastern Oregon Public and Private Land

County: \_\_\_\_\_ Township, Range, Section(s): \_\_\_\_\_

Oregon Dept. of Fish & Wildlife Region or District: Northeast & High Desert Regions

4. Type of Project:

Wildlife Management: X Habitat Improvement: \_\_\_\_\_ Hunter Education: \_\_\_\_\_  
Other: \_\_\_\_\_

5. Proposed Start Date: November 2003

6. Estimated Total Cost of Project: \$ 131,000

7. OHA Funding requested: \$ State OHA- \$20,000, Local Chapters OHA- \$6,000

8. OHA Volunteer Hours proposed: \_\_\_\_\_

Conduct aerial hunting of coyotes to protect livestock in areas where ODFW

9. Briefly explain the purpose of the project: has identified coyotes as the reason game management objectives have not been met, or conduct aerial hunting of coyotes for the incidental benefits to game species. ODFW can request USDA-APHIS-Wildlife Services to help reduce predation on game populations.

10. Complete and attach proposed project detail pages, and include additional maps, photos etc. as needed.

Send Applications may be addressed to local OHA Chapters or to the OHA State Office.

Oregon Hunter's Association

Attn: \_\_\_\_\_

P.O. Box 1706

Medford, OR 97501

# OREGON HUNTER'S ASSOCIATION

## PROJECT PROPOSAL AND GRANT APPLICATION

### Project Detail

Project Title: Incidental Benefits of Livestock Predation Management for Wildlife Species

#### 1. Background:

Locally in Eastern Oregon, ODFW Biologists and sportsmen are concerned over the decline of deer and pronghorn antelope. Where predation is suspected to be a contributing factor, predation management can be a beneficial wildlife management tool when selectively and strategically applied. Aerial hunting of coyotes can be a very selective coyote removal tool that USDA-APHIS-Wildlife Services can use to address predation.

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**Management to improve fawn survival.**—Both mule deer (*Odocoileus hemionus*) and pronghorn (*Antilocapra americanus*) fawn survival can be increased by management actions that decrease predation by coyotes (e.g., Hailey 1979, Knowlton 1976). For the latter, predation of unprotected fawns can approach 90%, although factors such as alternative prey, age structure of the coyote population and synchrony of fawning all play a factor (Dunbar et al. 1999, Byers 1997).

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Similarly, mule deer fawn survival can be increased when coyote populations are seasonally suppressed in fawning habitat. In Utah, coyote predation management was applied to deer hunt units where populations were depressed (<50% of herd objectives specified by the Utah Department of Wildlife Resources), fawn recruitment was low (<50 fawns:100 does) and the population trend was stable to declining (Utah Division of Wildlife Resources 1996). In one such unit, fawn survival increased from 9% to 42% when predation management was implemented. In another, fawn survival increased from 30.75 fawns:100 does to 51:100. In a third, fawn survival increased from 50:100 to 64:100 as a result of coyote management efforts.

**Management to protect endangered species.**--Bighorn sheep (*Ovis canadensis*) are affected by lions throughout their range. In California, lion predation has resulted in the emergency listing of this species, to allow for lion predation management. Restoration of bighorn sheep in Utah has been limited by lion predation, and removal of lions is believed to be instrumental to the success of restored populations (Utah Division of Wildlife Resources 1996).

Black-footed ferret (*Mustela nigripes*) populations are severely impacted by coyote predation, especially following restoration efforts (Utah Division of Wildlife Resources 1995). In studies of restoration success in South Dakota, 30 day survival rates averaged 31 % in the absence of predation management, but 67.5 % with predation management in place. Based upon an introduction of 50 ferrets, the difference in survival with and without predation management, and using an average individual value of \$29,132 (Table 5), 18 ferrets would be saved with predation management producing \$524,376 in financial benefit. Perhaps more significant, since nearly all of the ferret survival occurred in the presence of predation management, the success of the entire restoration effort arguably could be said to hinge on the application of this one management tool.

**Management to protect upland birds and nesting waterfowl.**--Upland game bird populations may be affected by predation, including direct predation of chicks and adults as well as nest predation. Again, while predation may be a natural phenomena, several species have been shown to be negatively impacted. In one population of sage grouse in Utah, annual adult mortality due to predation (primarily non-native red fox) was 82% without fox control in place while only 33% with fox control (Bunnell and Flinders 1999). Grouse nests are also predated. Ten of 19 (53%) sage grouse nests on the Parker Mountain in Utah were destroyed by ravens (T. A. Messmer, pers. commun.). In an artificial nest predation study in Idaho sage grouse habitat, 28% of the nests placed in a predator control area were destroyed while 98% were destroyed in an adjacent no control area (Collinge and Maycock, 2000).

In two study sites in southern Utah, pheasant (*Phasianus colchicus*) populations doubled in treatment (predator removal) areas relative to nearby no-treatment areas. In northern Utah, a similar study increased pheasant populations on areas with good pheasant habitat, but an overall increase was not noted (Frey et al. 2000). The conditional nature of the northern Utah result was attributed to the small size of the study plots involved, and the amount of pheasant habitat available for treatment.

Production by nesting waterfowl also can be improved by predation management. Adult survival during the nesting season also can be improved. Red fox alone are reported to kill 18% of the nesting hen mallards in North Dakota annually, and kill an estimated 900,000 adult ducks (predominantly hens) each year in the prairie pothole region. In a predator removal demonstration project, nest success in the treatment (predator removal) site was 71% while nest success on the no treatment site was 14%. The difference was compounded by the treatment site containing 166% more nests than the no treatment site, which could indicate that predation management can lead to increased productivity due to nest site selection by duck pairs as well as decreasing actual predation. Numerically, 178 nests successfully hatched on the treatment site, compared to only 21 nests on the no treatment site, an 847% increase in total nest productivity. Cost for the treatment was \$2.00/acre, assuming the benefits extended only to the treatment site itself. If the benefit of predator removal extended outside of the treatment area 2 miles, costs dropped to \$0.48/acre (Jones 1994).

## **Case Studies of Big Game Protection**

The present discussion focuses on the cost of conventional predation management and the effect applications of these methods have on wildlife numbers. Much of the best available data has been generated in Utah; a series of case studies is presented below. Each of the areas discussed is a big game management unit that was selected by the Utah Division of Wildlife Resources for predation management activity. Selection highlights an important caveat which, although previously stated, is worth reiteration here. Specifically, the timing of predation management, habitat characteristics, game abundance relative to carrying capacity, and a variety of other factors can and do influence game populations. Like any wildlife management tool, managers must select methods carefully so that the critical features limiting recruitment are addressed.

**Henry Mountains mule deer.**—Using aerial hunting of coyotes from fixed and rotary wing aircraft and coyote removals by ground personnel, the cost of fawn protection from coyotes was \$6.96 per square mile treated in 1997 and \$8.69 per square mile in 1998. Overall, the cumulative cost for two years of fawn protection in this unit was \$15,841. Recruitment was improved substantially; herd size increased by 600 animals, reversing a 5 year decline (Bodenchuk 1999). The civil value assigned to mule deer is \$300. Accordingly, the net benefit for two years work was \$180,000, permitting calculation of a benefit:cost ratio of 11.4:1.

**Bookcliffs mule deer.**—Intensive aerial hunting of coyotes on fawning grounds cost \$11,100 in 1997, or \$66.87 per square mile. Recruitment improved substantially, and herd size increased by 667 animals (Bodenchuk 1999). Accordingly, the net benefit was \$200,100. The benefit:cost ratio for this project area was 18:1.

**Pahvant mule deer.**—Using aerial hunting and coyote removals by ground personnel, three years of deer fawn protection cost \$27,480 and resulted in an estimated increase of 2,073 fawns worth \$621,900 (Bodenchuk 1999). The benefit:cost ratio of this project was 22.6:1.

**Pronghorn.**—Pronghorn protection has been extensively evaluated (much more so than mule deer) and is nearly always considered to be cost beneficial. For example, Smith et al. (1986) evaluated the benefit:cost of predation management using the cost of pronghorn permits plus estimated hunter expenditures. A management schedule that involved the removal of territorial coyotes every other year yielded the greatest return, a benefit:cost ratio of 1.92:1. Depending on herd size, Smith et al. (1986) argued that benefits in the range of between 2:1 and 3:1 could be expected.

Overall, then, the range of benefit:cost ratios for predation management to protect wildlife ranged between 2:1 and 22.6:1. In FY 1998, Wildlife Services programs in the Western Region spent \$2,936,068 (federal and cooperative combined) on this activity. Accordingly, the benefits of Wildlife Services predation management to protect wildlife ranged between \$5,872,136 to \$66,355,137.

## **Incidental Benefits of Predation Management for Livestock Protection to Wildlife**

The examples above lead to the conclusion that predation management can be a beneficial wildlife management tool when selectively and strategically applied. Since wildlife in crisis often co-exist with livestock in many areas of the West, predation management for livestock protection may have significant consequences for wildlife species in the treatment areas. The degree of incidental benefit may depend on the timing and intensity of management efforts. Several case studies follow to illustrate this point.

In Utah, five deer management units received intensive coyote control for domestic sheep grazing on summer range (fawning range for the deer). Despite a severe winter loss in 1992 – 93, these units averaged 74.4% of the Utah Division of Wildlife Resource's deer herd objective in 1995, an average increase in herd size of 6.4% over 1994 numbers. Three other deer management units received intensive coyote control for winter sheep grazing (winter range for the deer herd) and in 1995 averaged 50.3% of objective and were increased at an average of 2.3% over 1994 numbers. Finally, nine deer units received no predation management efforts by WS during the period. These units averaged 39.7% of objective and were decreased at an average of 1.1% from 1994 numbers.

In Texas, intensive coyote control for sheep and goat protection may be one cause of high deer survival and densities on the Edward's Plateau. Whether these densities are biologically good or bad depends on the degree to which deer management is concurrently applied. Unchecked deer populations overuse the available forage and that in turn may argue against predation management in certain areas. This final point highlights the fact that predation management can have negative effects on other species of wildlife (Kie et al. 1979).

## **2. Project Objective:**

### **a. What is the objective of the project?**

- OHA funds will help restore some of the aerial hunting hours that Wildlife Services will have to cut due to a reduction in funds from the Oregon Department of Agriculture. Since wildlife in crisis often co-exist with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in the treatment areas. In FY 2001, Wildlife Services removed 5993 coyotes in eastern Oregon. Sixty percent (3055) were taken with our aerial hunting program. Wildlife Services has evaluated the benefit:cost ratio of coyote control to protect game species and has found predation management activities to protect wildlife show benefit:cost ratios ranging from 2:1 to 22:1.

### **b. How will the project benefit wildlife management and/or habitat improvement?**

- In areas where ODFW Biologists have determined that predation is the cause for herd management objectives not being met they can request Wildlife Services to conduct aerial hunting to control coyotes. In areas where ODFW Biologists suspect predators of causing additive mortality, the removal of coyotes to protect livestock may have a beneficial affect on game populations. Coordination with local ODFW Biologists will help determine where benefits to both game and livestock may be realized when aerial hunting of coyotes is conducted.

## **Project Location:**

-Wildlife Services is able to conduct aerial hunting of coyotes wherever ODFW wants to conduct coyote control to meet game management objectives or wherever livestock are legally present and experiencing predation or threats of predation. This includes private and public lands. Project would be coordinated with local ODFW Biologists, local land managers, and local OHA chapters throughout eastern Oregon.

# OREGON HUNTER'S ASSOCIATION

## PROJECT PROPOSAL AND GRANT APPLICATION

### Project Detail (Continued)

**Project procedure:** (Specifically describe how the project will be conducted – use separate pages for additional information, drawings or pictures.)

Areas where game species could benefit by reducing coyote predation on young will be identified with input from ODFW District Biologist, Federal land and wildlife managers, OHA, and USDA-APHIS- WS. OHA funds will be used to support aerial hunting of coyotes and coyotes dens.

**Permits, Inter-Agency Coordination:** (Have all necessary permits been secured or applied for? Has all inter-agency coordination and approvals been initiated or secured?)

- USDA-APHIS-Wildlife Services maintains close coordination with ODFW, ODA, U.S. Forest Service, U.S. Bureau of Land Management, U.S. Fish and Wildlife and Indian Tribes.
- NEPA requirements have been met to allow Wildlife Services to work on private and public lands.
- USDA-APHIS-Wildlife Services has authority to shoot coyotes and feral pigs from aircraft.

### Project Schedule:

a. Start Date: Nov. 2003 Completion Date: July 9, 2004

b. List major project activities and time schedule for each.

#### Activity

#### Time (Month/Year)

- Aerial hunting of coyotes removing coyotes and locating dens for removal.

- November -early July  
-When deer move to wintering ground and coyote breeding season through fawning and kidding season.

# OREGON HUNTER'S ASSOCIATION

## PROJECT PROPOSAL AND GRANT APPLICATION

### Project Detail (Continued)

**Participation:** (What organizations will participate in the project? List and describe the participation, and attach letters of commitment or verification of other grant awards to be involved in this project. You do not need to include individuals.)

<u>Participant</u>	<u>Activity</u>
ODFW	-Identify areas where predator control would benefit wildlife
OHA	-Assist in local coordination of aerial hunting.
BLM, USFS, USFWS	-Identify areas of Federal lands where project can be carried out.
USDA/APHIS/WS	-Conduct and report on aerial hunting operations and results.

### **Funding:**

a. List other sources and amount of project funds (include in budget on page 5). Historically, USDA/APHIS/WS aerial hunting program has been funded entirely with federally appropriated money. Because of potential cuts in state funding from Oregon Department of Agriculture and Oregon Department of Fish & Wildlife, federal dollars will be shifted from supporting aerial hunting to support personnel expenses through out the program. A base level of federal funding (\$105,000) will provide a foundation to the aerial hunting program to allow 100% of non-federal funds to be used on aerial hunting missions.

b. Have any conditions been placed on funds listed in "a." above which may affect the completion of the project? If so, identify and explain.

No, what ever OHA provides will be used as agreed upon.

### **Project Maintenance and Monitoring:**

a. Who will maintain the project and fund long-term maintenance and/or operation, if needed?

USDA/APHIS/WS, contingent on federal, state and county funding.

b. What element(s) of the project will be monitored, how often, for how long?

-Aerial hunting activities will be monitored annually for NEPA compliance.

-Annual reports will be provided to OHA and updates on project will be provided as desired by OHA.

# OREGON HUNTER'S ASSOCIATION

## PROJECT PROPOSAL AND GRANT APPLICATION

### Project Detail (Continued)

**Project Cost Estimate:**

(Federal)

Category	OHA Funds	Other Funds	Total Cost	Remarks
Administration (Itemize)		\$2,000		
Training		\$2,000		
Travel		\$2,000		
Construction Materials (Itemize)				
Supplies (Itemize)				
cell phones		\$1,500		
ammunition		\$5,000		
shotguns		\$2,500		
misc		\$1,000		
Contract Services (Itemize)	\$20,000 @ \$100/ hr			
pilot & gunner		\$65,000		
fuel & oil				
ammunition				
ferry time	\$0	\$4,000		
Equipment (Itemize)				
maintenance/ repairs		\$20,000		
<b>Total Cost</b>	<b>\$20,000</b>	<b>\$105,000</b>		



Oregon Hunter's Association  
P.O. Box 1706  
Medford, OR 97501

July 21, 2004

Dear Board of Directors:

Enclosed you will find a proposal to renew the grant Wildlife Services (WS) has received the past 2 years from the Oregon Hunter's Association (OHA). I am requesting \$15,000 from OHA and hope to get additional financial support from local OHA Chapters as we have the past 2 years. These funds will be used to help support our aerial hunting program from November 2004 in to July 2005. This year, we actually collected more funding from private ranchers than from OHA sources. I mention this because I want to give OHA credit for supplying the cost share funds that have generated the interest and willingness of ranchers to participate in supporting our aerial hunting activities. This new cooperatively funded program is proving very successful despite it being a radical departure from the traditional program fully funded with federal dollars.

This year we will continue the hourly rate at \$100/hour. Aerial hunting activities will continue to be coordinated with local ODFW Biologists, OHA representatives, and landowners/managers. It is our hope that we can continue to expand on the success we have had the past 2 years and use an increase in OHA and private rancher/landowner money to benefit livestock, wildlife species and hunter/landowner relationships. OHA money will continue to be used on private and public land to protect livestock and incidentally benefit wildlife or we could specifically fly for game protection and enhancement as described in the grant application.

The application explains how predator management can in certain situations be very effective in enhancing game populations while being cost effective. Aerial hunting is the principal tool that WS uses to address predation management to protect game herds in cooperation with various state and federal agencies. It is a very selective and effective tool that has been documented to help wildlife agencies enhance game populations.

We will be available to present a project completion presentation at your September Board meeting or we can simply print a copy of our presentation after we update our coyote take and hours flown by county. We do not have all of our June-July coyote and expenditures data compiled yet. As of June 1, 2004 we have taken 2,418 coyotes in eastern Oregon with 1,457 (60%) taken with our aircraft. We took 54 dens in eastern Oregon with the majority of the dens being located with our aircraft.

I look forward to continuing our cooperative effort to manage coyote predation for the benefit of wildlife and livestock.

David E. Williams  
State Director

ENCL:

(b)(6)





**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Summary Page**

1. Project Title: Incidental Benefits of Livestock Predation Management for Wildlife Species
2. Applicant: USDA-APHIS-Wildlife Services  
 Address: 6135 NE 80<sup>th</sup>, Suite A-8  
 City/State/ZIP: Portland, OR 97218 Telephone: (503) 326 - 2346  
 E-mail address:  david.e.williams@usda.gov  
 Signature: David E Williams Title: St. Director Date: 07/30/05
3. Project Location: Eastern Oregon on public and private land  
 County: \_\_\_\_\_ Township, Range, Section(s): \_\_\_\_\_
4. Reviewed and recommended by OHA \_\_\_\_\_ Chapter.  
 Chapter recommends \_\_\_\_\_ Approval \_\_\_\_\_ Denial Attach comments, if any.  
 Chapter President signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Regional state board signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Regional state board director recommends \_\_\_\_\_ Approval \_\_\_\_\_ Denial Attach comments, if any.
5. Type of Project: Wildlife Management: X Habitat Improvement: \_\_\_\_\_ Hunter Education: \_\_\_\_\_  
 Other: \_\_\_\_\_
6. Proposed Start Date: November 2005
7. Estimated Total Cost of Project: \$ 171,571
8. OHA Funding requested: \$ 10,000
9. OHA Volunteer Hours proposed: \_\_\_\_\_
10. Briefly explain the purpose of the project: Conduct aerial hunting of coyotes to protect livestock in areas where ODFW has identified coyotes as the reason game management objectives have not been met, or conduct aerial hunting of coyotes for the incidental benefits to game species. ODFW can request USDA-APHIS-WS to help reduce predation on game populations.
11. Complete and attach proposed project detail pages, and include additional maps, photos etc. as needed.

Send the application to: Oregon Hunters Association  
 Attn: Grant Committee  
 P.O. Box 1706  
 Medford, OR 97501

**Board Action:** Denied \_\_\_\_\_ Approved \_\_\_\_\_ For the amount of \$ \_\_\_\_\_  
 Conditions:

Board Chair signature: \_\_\_\_\_ Date: \_\_\_\_\_ Assigned to regional board member \_\_\_\_\_ for coordination.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail**

**Project Title:** The Incidental Benefits of Livestock Predation Management for Wildlife Species

1. **Background:** (Describe the wildlife management and or habitat challenge this project will address.)

Locally in Eastern Oregon, ODFW Biologists and sportsmen are concerned over the decline of deer and antelope. Where predation is suspected to be a contributing factor, predation management can be a beneficial wildlife management tool when selectively and strategically applied. Aerial hunting of coyotes can be a very selective coyote removal tool that USDA-APHIS-Wildlife Services can use to address predation.

Predation is a naturally occurring phenomenon. There is abundant evidence that predator and prey numbers fluctuate in healthy ecosystems and that the number of either is unlikely to become so low or so high as to warrant concern (e.g., Errington 1967). However, there are also many instances in which ecosystem health has been negatively affected by weather, fire, human disturbance, removal of top predators, introductions of exotic flora or fauna, etc. In these circumstances, predators may have significant negative impacts on prey (Hecht and Nickerson 1999) and populations of the latter may be driven significantly low to draw attention of managers, and, ultimately, the expenditure of public and private funds. One tool that can be implemented to benefit threatened prey species and to improve the recruitment of younger individuals into the population is predation management.

**Management to improve fawn survival-** Both mule deer (*Odocoileus hemionus*) and pronghorn (*Antilocapra americana*) fawn survival can be increased by management activities that decrease predation by coyotes (e.g., Haily 1979, Knowlton 1976). For the latter, predation of unprotected fawns can approach 90%, although factors such as alternative prey, age structure of the coyote population and synchrony of fawning all play a factor (Dunbar et al. 1999, Byers 1997).

When predation management programs are implemented, pronghorn fawn survival and the recruitment of young individuals into the adult population can increase dramatically. Smith et al. (1986) noted that predation management could result in 100% annual increases in population size. In general, management activities that remove coyotes after breeding territories are established but prior to fawning can double fawning success.

Similarly, mule deer fawn survival can be increased when coyote populations are seasonally suppressed in fawning habitat. In Utah, coyote predation management was applied to deer hunt units where populations were depressed (<50% of herd objectives as specified by the Utah Division of Wildlife Resources), fawn recruitment was low (<50 fawns:100 does) and the population trend was stable to declining (Utah Division of Wildlife Resources 1996). In one such unit, fawn survival increased from 30.75 fawns:100 does to 51:100. In a third, fawn survival increased from 50:100 to 64:100 as a result of coyote management efforts.

**Management to protect endangered species-** Bighorn sheep (*Ovis Canadensis*) are affected by lions throughout their range. In California, lion predation has resulted in the emergency listing of this species, to allow for lion management. Restoration of bighorn sheep in Utah has been limited due by lion predation, and removal of lions is believed to be instrumental to the success of restored populations (Utah Division of Wildlife Resources 1996).

Black-footed ferret (*Mustella nigripes*) populations are severely impacted by coyote predations, especially following restoration efforts (Utah Division of Wildlife Resources 1995). In studies of restoration success in South Dakota, 30 day survival rates averaged 31% in the absence of predation management, but 67.5% with predation management in place. Based upon an introduction of 50 ferrets, the difference in survival with and without predation management and using an average individual value of \$29,132, 18 ferrets would be saved with predation management producing \$524,376 in financial benefit. Perhaps more significant, since nearly all of the ferret survival occurred in the presence of predation management, the success of the entire restoration effort arguably could be said to hinge on the application of this one management tool.

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Overall, then, the range of benefit:cost ratios for predation management to protect wildlife ranged between 2:1 and 22.6:1. In FY 1998, Wildlife Services programs in the Western Region spent \$2,936,068 (federal and cooperative combined) on this activity. Accordingly, the benefits of Wildlife Services predation management to protect wildlife ranged between \$5,872,136 to \$66,355,137.

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wildlife species in the treatment areas. The degree of incidental benefit may depend on the timing and intensity of management efforts. Several case studies follow to illustrate this point.

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In Texas, intensive coyote control for sheep and goat protection may be one cause of high deer survival and densities in the Edward's Plateau. Whether these densities are biologically good or bad depends on the degree to which deer management is concurrently applied. Unchecked deer populations overuse available forage and in turn may argue against predation management in certain areas. This final point highlights the fact that predation management can have negative effects on other species of wildlife (Kie et al. 1979).

## 2. **Project Objective:**

a. What is the objective of the proposed project?

Increase hunter opportunity through predator management and greater access to private lands.

b. How will the project benefit wildlife management, habitat improvement, and/or hunters' rights?

There will be a reduction in predation on game species in areas open to hunters. The cost sharing of this project will foster better relations between ranchers and sportsmen. More game and more hunter access will result in increased hunter opportunities in Eastern Oregon.

**Project Location:** (Attach a map and provide narrative description of the project location and how to get there from a major highway.)

Project will take place on public and private land in Eastern Oregon. Wildlife Services can conduct aerial hunting activities wherever livestock are legally present or where ODFW requests our assistance in addressing predation on game animals. Wildlife Services will secure written permission to access lands and will conduct project activities as, mutually agreed upon with OHA.

**Project procedure:** (Specifically describe how the project will be conducted – use separate pages for additional information, drawings or pictures.)

Areas where game species could benefit by reducing coyote predation on young game animals will be identified with input from ODFW District Biologists, federal land and wildlife managers, OHA and USDA-APHIS-WS biologists. OHA funds will be used to support aerial hunting of coyotes and coyote dens.

**Permits, Inter-Agency Coordination:** (Have all necessary permits been secured or applied for? Have all inter-agency coordination and approvals been initiated or secured?) USDA-APHIS-WS maintains close coordination with ODFW, ODA, USFS, BLM, USFWS, Indian Tribes and county governments through cooperative agreements and memorandum of understanding.

NEPA requirements have been met to allow WS to work on private and public lands.

USDA-APHIS-WS has authority to shoot coyotes and feral pigs from aircraft.



**PROJECT PROPOSAL AND GRANT APPLICATION**  
**Project Detail (continued)**

**Project Schedule:**

- a. Start Date: November 2005 Completion Date: July 2006
- b. List major project activities and time schedule for each.

Activity	Time (Month/Year)
-Aerial hunting of coyotes removing coyotes and locating dens for removal.	-November through early July -When deer move to wintering ground and coyote breeding season through fawning and kidding season.

**Participation:** (What organizations will participate in the project? List and describe the participation, and attach letters of commitment or verification of other grant awards to be involved in this project. You do not need to include individuals.)

Participant	Activity
ODFW	-Identify areas where predator control would benefit wildlife.
OHA State & local Chapters	-Assist in local coordination of aerial hunting.
BLM, USFS, USFWS	-Identify areas on federal lands where project can be carried out.
USDA-APHIS-WS	-Conduct and report on aerial hunting operations and results.
Private ranchers/landowners	-As many as 124 individuals will contribute funding to support aerial hunting in counties where OHA funding will be used.
Safari Club International	-Funding aerial hunting in the western portion of Beaty's Butte Unit (western Harney Co. & eastern Lake Co.).
Mule Deer Foundation	-Funding from the Eastern OR/Western ID Chapter of MDF to support aerial hunting of coyotes in northern Malheur Co.

**Funding:**

- a. List other sources and amount of project funds (include in budget on page 5).
  - Federal funds (\$133,291) to cover salaries and benefits of pilots and gunners, when they are not flying, all of the ferry time expenses and overhead expenses. This allows all non federal funds to be used to support aerial hunting hours flown.
  - Local OHA Chapter funds (\$7,000)
  - Private ranchers/landowners (\$24,000)
  - Safari Club International (\$2,500)
  - Mule Deer Foundation (\$850)

- b. Have any conditions been placed on funds listed in "a." above, which may affect the completion of the project? If so, identify and explain.  
No, what ever OHA provides will be used as mutually agreed upon by OHA and WS.

**Project Maintenance and Monitoring:**

- a. Who will maintain the project and fund long-term maintenance and/or operation, if needed?  
USDA-APHIS-WS, contingent on federal, state and county funding.
- b. What element(s) of the project will be monitored, how often, for how long?  
-Aerial hunting activities will be monitored annually for NEPA compliance.  
-Annual reports will be provided to OHA and project updates will be provided as desired by OHA.

**How will OHA be publicly recognized for its contribution to this project?**

When Wildlife Services attends livestock association meetings throughout the year we recognize OHA's support of the aerial hunting program we deliver. Livestock associations recognize the mutual benefits to livestock producers and wildlife when coyote control is jointly funded by ranchers and OHA. We have also recognized OHA's contribution to the Wildlife Services aerial hunting program at Safari International Meetings and other sportsmen groups.

The cooperative relationship between OHA and private ranchers in supporting predator management is recognized by the Oregon Legislature's Ways and Means committee. Testimony describing this project during appropriations hearings was well received by the legislators on the committee.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail (continued)**

**Project Cost Estimate:**

<u>Category</u>	<u>OHA Funds</u>	<u>Other Funds</u>	<u>Total Cost</u>	<u>Remarks</u>
Administration				
-Training		\$2,500	\$2,500	
-Accounting/Admin		\$3,000	\$3,000	
Construction				
Materials (Itemize)				
Supplies				
-Shotguns		\$2,000	\$2,000	
-Misc. Supplies		\$1,000	\$1,000	
-Cell phones/radio equip		\$7,000	\$7,000	
Contract Services				
-Ammunition	\$10,000		\$10,000	
-Fuel & Oil	*			
-Regular Maintenance	*			
-Travel	*			
-Ferry Time		\$22,610	\$22,610	
-Pilot & gunner	*	\$109,300	\$109,300	
-ground crew	*	\$1,761	\$1,761	
-Hangar Fees		\$2,400	\$2,400	
*NOTE: OHA funds will be used to cover the expenses for ammunition, fuel & oil, regular maintenance, aerial hunting crew salaries & benefits, and per diem for flight crews. All ferry time and salaries & benefits for aerial hunting crews when not conducting aerial hunting missions will be covered by federal funds.				
Equipment (Itemize)				
-Aircraft equipment upgrades		\$10,000	\$10,000	
<b>Total Cost</b>	<b>\$10,000</b>	<b>\$161,571</b>	<b>\$171,571</b>	



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report**

**Project Name:** Incidental Benefits of Livestock Predation Management for Wildlife Species

**Location:** Eastern Oregon on public and private lands open to hunting

**Grantee:** USDA-APHIS-Wildlife Services

**Address:** 6135 NE 80<sup>th</sup>, Suite A-8  
Portland, OR 97218

**Phone:** (503) 326-2346

**1. Briefly describe the project objective(s):**

Generate cost share funding between OHA, private ranchers and the USDA-APHIS-WS program to support aerial hunting of coyotes in eastern Oregon. OHA funds will help restore some of the aerial hunting hours that Wildlife Services have had to cut due to a reduction in funds from the Oregon Department of Agriculture. Since wildlife in crisis often co-exists with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in treatment areas.

**2. Describe the project accomplishments (indicate any changes from proposed to actual accomplishments):**

Our accomplishments this past year exceeded what we were able to do in FY 2004. This was due to us hiring a new pilot to cover the northern tier of Oregon and moving our plane based in Pendleton to LaGrande. The new pilot brings better skills to our program and moving the plane to LaGrande resolves the weather (fog) issues that frequently kept our plane grounded. Our accomplishments are anticipated to increase during the upcoming year because our new pilot did not come on board with us until mid January. Despite this our numbers of hours flown in 2005 were 422.8 compared with 399.3 in FY 2004. Next year we will have two seasoned crews going in to the aerial hunting season. In FY 2005 Wildlife Services removed 3,293 coyotes in eastern Oregon. Sixty-eight percent (2,236) were taken with our aerial hunting program. This is an increase from 2004 when we removed 2,418 coyotes in eastern Oregon, of which sixty percent (1,457) were taken with our aerial hunting program. The Wildlife Services program also destroyed 101 coyote dens compared with 54 coyote dens destroyed in FY 2004. Many of these dens were located through the use of our aircraft conducting this project.

Due to the grants from OHA at the State and local chapter levels and the additional funding from the other sources noted in this grant proposal we are now getting back to the level of our FY 2001 coyote take in eastern Oregon (total take of 5,039 with 3,055 taken by aircraft). FY 2001 was the last year both planes were running full steam with no funding problems. State cuts hit us hard in FY 2002 and greatly reduced our ability to fund our aerial program. If the OHA grants continue, I am confident the other sources of funds would also continue, thus enabling us to meet or exceed our coyote take in FY 2001.

There is a two page summary chart showing hours flown and coyotes taken, broken down by county attached to this grant package.

Wildlife Services covered the expenses of the 226.1 hours of ferry time associated with this project.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report (continued)**

3. Summarize how OHA Grant and Grantee funds were spent on this project (indicate any changes from proposed to actual spending activities):

<u>Expenditure Category</u> (i.e. materials, labor, equipment, etc.)	<u>OHA Grant Funds</u>	<u>Other Grantor Funds</u>	<u>Grantee Funds</u>	<u>Total Cost</u>
	\$14,000*	\$24,280	\$133,291	\$171,571**

\*Note: There was actually a total \$15,000 plus in OHA funds available directly through the OHA State Grant of \$10,000 and \$5,000 from local OHA Chapters. The Crook County chapter of OHA provided \$2,000, but because these funds came late in the season we used only \$1,000 with the balance remaining in trust for use next year. Also it should be noted that the Portland Chapter of OHA provides funding directly to the Wallowa County Predator District which helps pay for some of the aerial hunting we conduct in that county.

\*\*Note: The \$24,280 in other Grantor funds used came from private ranchers/landowners and Safari Club International. OHA funds were used with other Grantor funds as described in the 2003 Grant proposal in counties identified by OHA. Grantee funds were used to cover ferry time, equipment upgrades, administrative costs and salary & benefits of pilots and gunners when they were not conducting aerial hunting missions associated with this project.

A final accounting of expenditures will be available in September when final accounting of our aviation expenses will be complete.

4. Describe the educational opportunities provided through this project (if applicable):

This project is an opportunity to educate the legislative and political figures on the importance of sportsmen and ranchers in providing habitat and funding for wildlife management. The project is fostering good relations between the hunting and ranching community resulting in more hunting opportunities.

5. Describe how this project has benefited wildlife and/or wildlife habitat:

Wildlife Services has evaluated the benefit:cost ratio of coyote control to protect game species and has found predation management activities to protect wildlife show benefit:cost ratios ranging from 2:1 to 22:1. Predation management at times is key to game populations reaching management objectives developed by wildlife managers.

Wildlife Services will continue to coordinate with ODFW Biologists to determine where benefits to both game and livestock may be realized when aerial hunting of coyotes is conducted.

6. Describe how the project has benefited you as a landowner (...or conservation group, association, agency, cooperator, educational institution, etc.)

Wildlife Services can use OHA funds and rancher funds to support our very important aerial hunting tool in Eastern Oregon. We can effectively address livestock killing with our aircraft which frees up time of our field people to address other wildlife conflicts.

7. If a research paper or report was a product of this project, please attach a copy.

8. If photographs were taken of the completed project, please attach copies.

10. Additional comments:

We are available to make a presentation at your September Board meeting or local chapter meetings. A final project report can be printed and sent to the Board in lieu of us appearing before the Board if so desired.

Grantee Signature:	<u>David E. Williams</u>	<b>Please return completion report to:</b> President Oregon Hunters Association P.O. Box 1706 Medford, OR 97501
Grantee name and title:	<u>David E. Williams</u> State Director	
Date:	<u>7/30/05</u>	

# OHA Aerial Hunting

FY 05

County	Hours												Total Hours	
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep		
Crook				3.2	3.6	7.4	8.5							22.7
Deschutes					1	1								2
Jefferson							6.6							6.6
Gilliam		4.5		2.7	3.6	2.8		7	3.3					23.9
Harney		1.4	7.8	14.5	12.2	23.8	10.1	3.5	3.8					77.1
Klamath				9.6	0			3.7	2					15.3
Lake		6	8.5	6.9	7.9	9.8	3.4	12.1	3.8					58.4
North Malheur				7	24.9	12.4	7.9	14.7	7.3					74.2
South Malheur		3.5	6.5	4.3	5.2	4.1	6	4						33.6
Morrow				9.1	11.9		1	1.7						23.7
Umatilla					23.3	8.6	12.6	3.4	2		1.8			51.7
Wallowa				1.8	14.5			6.3	1.3					23.9
Wasco					5.6		3.9							9.5
Wheeler								2						2
<b>Total</b>		15.4	22.8	59.1	113.7	69.9	60	58.4	23.5	0	1.8	0		<b>424.6</b>

## Coyotes

County	FY 05											Total Coyotes		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug		Sep	
Crook				30	31	40	31							132
Deschutes					0	2								2
Jefferson							11							11
Gilliam		18		5	10	6		7	5					51
Harney		3	76	186	112	133	39	19	20					588
Klamath				93	0			9	17					119
Lake		82	23	74	83	58	11	85	20					436
North Malheur				38	124	44	25	33	11					275
South Malheur		35	24	21	19	30	23	8						160
Morrow				23	75		5	8						111
Umatilla					87	27	29	6	3		2			154
Wallowa				3	108			23	2					136
Wasco					22		40							62
Wheeler								1						1
<b>Total</b>		138	123	473	671	340	214	199	78	0	2	0		<b>2238</b>



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Summary Page**

1. Project Title: Incidental Benefits of Livestock Predation Management for Wildlife Species
2. Applicant: USDA-APHIS-Wildlife Services  
 Address: 6135 NE 80<sup>th</sup>, Suite A-8  
 City/State/ZIP: Portland, OR 97218 Telephone: (503) 326 - 2346  
 E-mail address: david.e.williams@usda.gov  
 Signature: *David E Williams* Title: St. Director Date: 07/19/06
3. Project Location: Eastern Oregon on public and private land  
 County: \_\_\_\_\_ Township, Range, Section(s): \_\_\_\_\_
4. Type of Project: Wildlife Management: X Habitat Improvement: \_\_\_\_\_ Hunter Education: \_\_\_\_\_  
 Other: \_\_\_\_\_
5. Proposed Start Date: October 2006
6. Estimated Total Cost of Project: \$185,680
7. Capitol OHA Chapter funding requested: \$1,000
8. OHA Volunteer Hours proposed: \_\_\_\_\_
9. Briefly explain the purpose of the project: Conduct aerial hunting of coyotes to protect livestock in areas where ODFW has identified coyotes as the reason game management objectives have not been met, or conduct aerial hunting of coyotes for the incidental benefits to game species. ODFW can request USDA-APHIS-WS to help reduce predation on game populations.
10. Complete and attach proposed project detail pages, and include additional maps, photos etc. as needed.

Send the application to: Capitol Chapter, OHA

(b)(6)



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail**

**Project Title: The Incidental Benefits of Livestock Predation Management for Wildlife Species**

**1. Background: (Describe the wildlife management and or habitat challenge this project will address.)**

Locally in Eastern Oregon, ODFW Biologists and sportsmen are concerned over the decline of deer and antelope. Where predation is suspected to be a contributing factor, predation management can be a beneficial wildlife management tool when selectively and strategically applied. Aerial hunting of coyotes can be a very selective coyote removal tool that USDA-APHIS-Wildlife Services can use to address predation.

Predation is a naturally occurring phenomenon. There is abundant evidence that predator and prey numbers fluctuate in healthy ecosystems and that the number of either is unlikely to become so low or so high as to warrant concern (e.g., Errington 1967). However, there are also many instances in which ecosystem health has been negatively affected by weather, fire, human disturbance, removal of top predators, introductions of exotic flora or fauna, etc. In these circumstances, predators may have significant negative impacts on prey (Hecht and Nickerson 1999) and populations of the latter may be driven significantly low to draw attention of managers, and, ultimately, the expenditure of public and private funds. One tool that can be implemented to benefit threatened prey species and to improve the recruitment of younger individuals into the population is predation management.

**Management to improve fawn survival-** Both mule deer (*odocoileus hemionus*) and pronghorn (*Antilocapra americanus*) fawn survival can be increased by management activities that decrease predation by coyotes (e.g., Haily 1979, Knowlton 1976). For the latter, predation of unprotected fawns can approach 90%, although factors such as alternative prey, age structure of the coyote population and synchrony of fawning all play a factor (Dunbar et al. 1999, Byers 1997).

When predation management programs are implemented, pronghorn fawn survival and the recruitment of young individuals into the adult population can increase dramatically. Smith et al. (1986) noted that predation management could result in 100% annual increases in population size. In general, management activities that remove coyotes after breeding territories are established but prior to fawning can double fawning success.

Similarly, mule deer fawn survival can be increased when coyote populations are seasonally suppressed in fawning habitat. In Utah, coyote predation management was applied to deer hunt units where populations were depressed (<50% of herd objectives as specified by the Utah Division of Wildlife Resources), fawn recruitment was low (<50 fawns:100 does) and the population trend was stable to declining (Utah Division of Wildlife Resources 1996). In one such unit, fawn survival increased from 30.75 fawns:100 does to 51:100. In a third, fawn survival increased from 50:100 to 64:100 as a result of coyote management efforts.

**Management to protect endangered species-** Bighorn sheep (*Ovis Canadensis*) are affected by lions throughout their range. In California, lion predation has resulted in the emergency listing of this species, to allow for lion management. Restoration of bighorn sheep in Utah has been limited due by lion predation, and removal of lions is believed to be instrumental to the success of restored populations (Utah Division of Wildlife Resources 1996).

Black-footed ferret (*Mustella nigripes*) populations are severely impacted by coyote predations, especially following restoration efforts (Utah Division of Wildlife Resources 1995). In studies of restoration success in South Dakota, 30 day survival rates averaged 31% in the absence of predation management, but 67.5% with predation management in place. Based upon an introduction of 50 ferrets, the difference in survival with and without predation management and using an average individual value of \$29,132, 18 ferrets would be saved with predation management producing \$524,376 in financial benefit. Perhaps more significant, since nearly all of the ferret survival occurred in the presence of predation management, the success of the entire restoration effort arguably could be said to hinge on the application of this one management tool.

**Management to protect upland birds and nesting waterfowl-** Upland game bird populations may be affected by predation, including the direct predation of chicks and adults as well as nest predation. Again, while predation may be natural phenomena, several species have been shown to be negatively impacted. In one population of sage grouse in Utah, annual adult mortality due to predation (primarily non-native red fox) was 82% without fox control in place while only 33% with fox control (Bunnell and Flinders 1999). Grouse nests are also predated. Ten of 19 (53%) sage grouse nests on Parker Mountain in Utah were destroyed by ravens (T. A. Messmer, pers. Commun.). In an artificial nest predation study in Idaho sage grouse habitat, 28% of nests placed in a predator control area were destroyed while 98% were destroyed in an adjacent no control area (Collinge and Maycock, 2000).

In two study sites in southern Utah, pheasant (*Phasianus colchicus*) populations doubled in treatment (predator control) areas relative to nearby no-treatment areas. In northern Utah, a similar study increased pheasant on areas with good pheasant habitat, but an overall increase was not noted (Frey et al. 2000). The conditional nature of the northern Utah result was attributed to the small size of the study plots involved, and the amount of pheasant habitat available for treatment.

Production by nesting waterfowl also can be improved by predation management. Adult survival during the nesting season also can be improved. Red fox alone are reported to kill 18% of nesting hen mallards in North Dakota annually, and kill an estimated 900,000 adult ducks (predominately hens) each year in the prairie pothole region. In a predator removal demonstration project, nest success in the treatment (predator removal) site was 71% while nest success on the no treatment site was 14%. The difference was compounded by the treatment site containing 166% more nests than the no treatment site, which could indicate that predation management could lead to increased productivity due to nest site selection by duck pairs as well as decreasing actual predation. Numerically, 178 nests successfully hatched on the treatment site, compared to only 21 nests on the no treatment site, an 847% increase in total nest productivity. Cost for treatment was \$2.00/acre, assuming the benefits extended only to the treatment site itself. If the benefit of predator removal extended outside of the treatment area 2 miles, costs dropped to \$0.48/acre (Jones 1994).

#### **Case Studies of Big Game Protection-**

The present discussion focuses on the cost of conventional predation management and the effect applications of these methods have on wildlife numbers. Much of the best available data has been generated in Utah; a series of case studies is presented below. Each of the areas discussed is a big game management unit that was selected by the Utah Division of Wildlife Resources for predation management activity. Selection highlights an important caveat which, although previously stated, is worth reiteration here. Specifically, the timing of predation management, habitat characteristics, game abundance relative to carrying capacity, and a variety of other factors can and do influence game populations. Like any wildlife management tool, managers must select methods carefully so that the critical features limiting recruitment are addressed.

**Henry Mountains mule deer.** Using aerial hunting from fixed and rotary wing aircraft and coyote removals by ground personnel, the cost of fawn protection from coyotes was \$6.96 per sq. mile treated in 1997 and \$8.69 per sq. mile in 1998. Overall, the cumulative cost for two years of fawn protection in this unit was \$15,841. Recruitment was improved substantially; herd size increased by 600 animals, reversing a 5 year decline (Bodenchuk 1999). The civil value assigned to mule deer is \$300. Accordingly, the net benefit for two years work was \$180,000, permitting calculation of a benefit:cost ratio of 11.4:1.

**Bookcliffs mule deer.** - Intensive hunting of coyotes on fawning grounds cost \$11,000 in 1997, or \$66.87 per sq. mile. Recruitment improved substantially, and herd size increased by 667 animals (Bodenchuk 1999). Accordingly, the net benefit was \$200,100. The benefit:cost ratio of this project was 18:1.

**Pahvant mule deer.**- Using aerial hunting and coyote removals by ground personnel, three years of deer fawn protection cost \$27,480 and resulted in an estimated increase of 2,073 fawns worth \$621,900 (Bodenchuk 1999). The benefit:cost ratio of this project was 22.6:1.

**Pronghorn.**- Pronghorn protection has been extensively evaluated, much more so than mule deer, and is nearly always considered to be cost beneficial. For example, Smith et al. (1986) evaluated the benefit:cost of predation management using the cost of pronghorn permits plus estimated hunter expenditures. A management schedule that involved the removal of territorial coyotes every other year yielded the greatest return, a benefit:cost ratio of 1.92:1. Depending on herd size, Smith et al. (1986) argued that benefits in the range of 2:1 and 3:1 could be expected.

Overall, then, the range of benefit:cost ratios for predation management to protect wildlife ranged between 2:1 and 22.6:1. In FY 1998, Wildlife Services programs in the Western Region spent \$2,936,068 (federal and cooperative combined) on this activity. Accordingly, the benefits of Wildlife Services predation management to protect wildlife ranged between \$5,872,136 to \$66,355,137.

#### **Incidental Benefits of Predation Management for Livestock Protection to Wildlife**

The example above lead to the conclusion that predation management can be a beneficial wildlife management tool when selectively and strategically applied. Since wildlife in crisis often co-exist with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in the treatment areas. The degree of incidental benefit may depend on the timing and intensity of management efforts. Several case studies follow to illustrate this point.

In Utah, five deer management units received intensive coyote control for domestic sheep grazing on summer range (fawning range for deer). Despite a severe winter loss in 1992-93, these units averaged 74.4% of the Utah Division of Wildlife Resource's deer herd objective in 1995, an average increase in herd size of 6.4% over 1994 numbers. Three other deer management units received intensive coyote control for winter sheep grazing (winter range for the deer herd) and in 1995 averaged 50.3% of objective and were increased by 2.3% over 1994 numbers. Finally, nine deer management units received no predation management efforts by WS during the period. These units averaged 39.7% of objective and were decreased at an average of 1.1% from 1994 numbers.

In Texas, intensive coyote control for sheep and goat protection may be one cause of high deer survival and densities in the Edward's Plateau. Whether these densities are biologically good or bad depends on the degree to which deer management is concurrently applied. Unchecked deer populations overuse available forage and in turn may argue against predation management in certain areas. This final point highlights the fact that predation management can have negative effects on other species of wildlife (Kie et al. 1979).

## 2. **Project Objective:**

a. What is the objective of the proposed project?  
Increase hunter opportunity through predator management and greater access to private lands.

b. How will the project benefit wildlife management, habitat improvement, and/or hunters' rights?

There will be a reduction in predation on game species in areas open to hunters. The cost sharing of this project will foster better relations between ranchers and sportsmen. More game and more hunter access will result in increased hunter opportunities in Eastern Oregon.

**Project Location:** (Attach a map and provide narrative description of the project location and how to get there from a major highway.)

Project will take place on public and private land in Eastern Oregon. Wildlife Services can conduct aerial hunting activities wherever livestock are legally present or where ODFW requests our assistance in addressing predation on game animals. Wildlife Services will secure written permission to access lands and will conduct project activities as, mutually agreed upon with OHA.

**Project procedure:** (Specifically describe how the project will be conducted – use separate pages for additional information, drawings or pictures.)

Areas where game species could benefit by reducing coyote predation on young game animals will be identified with input from ODFW District Biologists, federal land and wildlife managers, OHA and USDA-APHIS-WS biologists. OHA funds will be used to support aerial hunting of coyotes and locating coyote dens.

**Permits, Inter-Agency Coordination:** (Have all necessary permits been secured or applied for? Have all inter-agency coordination and approvals been initiated or secured?) USDA-APHIS-WS maintains close coordination with ODFW, ODA, USFS, BLM, USFWS, Indian Tribes and county governments through cooperative agreements and memorandum of understanding and annual coordination meetings.

NEPA requirements have been met to allow WS to work on private and public lands.

USDA-APHIS-WS has authority to shoot coyotes and feral pigs from aircraft.



**PROJECT PROPOSAL AND GRANT APPLICATION**  
**Project Detail (continued)**

**Project Schedule:**

- a. Start Date: October 2006 Completion Date: September 2007
- b. List major project activities and time schedule for each.

Activity	Time (Month/Year)
-Aerial hunting of coyotes removing coyotes and locating dens for removal.	-October 2006 through early July 2007 -When deer move to wintering ground and coyote breeding season through fawning and kidding season.

**Participation:** (What organizations will participate in the project? List and describe the participation, and attach letters of commitment or verification of other grant awards to be involved in this project. You do not need to include individuals.)

Participant	Activity
ODFW	-Identify areas where predator control would benefit wildlife.
OHA State & local Chapters	-Assist in local coordination of aerial hunting.
BLM, USFS, USFWS	-Identify areas on federal lands where project can be carried out.
USDA-APHIS-WS	-Conduct and report on aerial hunting operations and results.
Counties	-Provide funding for ground crews and aerial hunting in areas adjacent to areas where OHA funds are being used.
Private ranchers/landowners	-As many as 124 individuals will contribute funding to support aerial hunting in counties where OHA funding will be used.
Safari Club International	-Funding aerial hunting in the western portion of Beaty's Bulle Unit (western Harney Co. & eastern Lake Co.).
Mule Deer Foundation	-Funding from the Eastern OR/Western ID Chapter of MDF to support aerial hunting of coyotes in northern Malheur Co.

**Funding:**

- a. List other sources and amount of project funds (include in budget on page 5).
  - Federal funds (\$149,600) to cover salaries and benefits of pilots and gunners, when they are not flying, all of the ferry time expenses and overhead expenses. This allows all non federal funds to be used to support aerial hunting hours flown.
  - Local OHA Chapter funds (\$15,500)
  - State OHA funds (\$10,000)
  - Private ranchers/landowners (\$24,000)
  - Safari Club International (\$2,500)
  - Mule Deer Foundation (\$850)

- b. Have any conditions been placed on funds listed in "a." above, which may affect the completion of the project? If so, identify and explain.  
No, what ever OHA provides will be used as mutually agreed upon by OHA and WS.

**Project Maintenance and Monitoring:**

- a. Who will maintain the project and fund long-term maintenance and/or operation, if needed?  
USDA-APHIS-WS, contingent on federal, state and county funding.
- b. What element(s) of the project will be monitored, how often, for how long?
  - Aerial hunting activities will be monitored annually for NEPA compliance.
  - Annual reports will be provided to OHA and project updates will be provided as desired by OHA.

**How will OHA be publicly recognized for its contribution to this project?**

When Wildlife Services attends livestock association meetings throughout the year we recognize OHA's support of the aerial hunting program we deliver. Livestock associations recognize the mutual benefits to livestock producers and wildlife when coyote control is jointly funded by ranchers and OHA. We have also recognized OHA's contribution to the Wildlife Services aerial hunting program at Safari International meetings and other sportsmen groups meetings and Association of Oregon County meetings.

The cooperative relationship between OHA and private ranchers in supporting predator management is recognized by the Oregon Legislature's Ways and Means committee. Testimony describing this project during appropriations hearings has been well received by the legislators on the committee.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail (continued)**

**Project Cost Estimate:**

<u>Category</u>	<u>OHA Funds</u>	<u>Other Funds</u>	<u>Total Cost</u>	<u>Remarks</u>
Administration				
-Training		\$3,500	\$3,500	
-Accounting/Admin		\$3,000	\$3,000	
Construction				
Materials (Itemize)				
Supplies				
-Shotguns		\$2,000	\$2,000	
-Misc. Supplies		\$1,000	\$1,000	
-Cell phones/radio equip		\$7,000	\$7,000	
Contract Services				
-Ammunition	\$10,000		\$10,000	
-Fuel & Oil	*			
-Regular Maintenance	*			
-Travel	*			
-Ferry Time		\$27,000	\$27,000	
-Pilot & gunner	*	\$112,680	\$112,680	
-ground crew	*	\$4,500	\$4,500	
-Hangar Fees		\$5,000	\$5,000	
*NOTE: State OHA funds and any local Chapters of OHA will be used to cover the expenses for ammunition, fuel & oil, regular maintenance, aerial hunting crew salaries & benefits, and per diem for flight crews. All ferry time and salaries & benefits for aerial hunting crews when not conducting aerial hunting missions will be covered by federal funds.				
Equipment (Itemize)				
-Aircraft equipment upgrades		\$10,000	\$10,000	
<b>Total Cost</b>	<b>\$10,000</b>	<b>\$175,680</b>	<b>\$185,680</b>	



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report**

Project Name: Incidental Benefits of Livestock Predation Management for Wildlife Species

Location: Eastern Oregon on public and private lands open to hunting

Grantee: USDA-APHIS-Wildlife Services

Address: 6135 NE 80<sup>th</sup>, Suite A-8  
Portland, OR 97218

Phone: (503) 326-2346

1. Briefly describe the project objective(s):

Generate cost share funding between OHA, private ranchers and the USDA-APHIS-WS program to support aerial hunting of coyotes in eastern Oregon. OHA funds will help restore some of the aerial hunting hours that Wildlife Services has had to cut due to a reduction in funds from the Oregon Department of Agriculture. Since wildlife in crisis often co-exists with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in treatment areas.

2. Describe the project accomplishments (indicate any changes from proposed to actual accomplishments):

Our accomplishments this past year exceeded what we were able to do in FY 2005. This was due to us hiring a new pilot to cover the northern tier of Oregon and moving our plane based in Pendleton to LaGrande. We negotiated a trade for our Supercub aircraft for a Christian Husky aircraft that has a faster ferry speed and larger fuel capacity which has given us better range and ability to respond more quickly to predation events. We now have two Christian Husky aircraft. We hired a new full time gunner that now gives us two seasoned crews that are not tied to other program activities. Our hours of hunting flown continue to increase with 399.3 flown in 2004, 432.5 in 2005 and 534.3 in 2006. Because we have invested in a new aircraft and a full time gunner we expect the number of hours to increase along with our effectiveness. Our coyote take increased in FY 2006 with 3,058 coyotes taken compared to 2,259 taken in FY 2005 and 1,511 taken in 2003. The Wildlife Services program also located 67 dens from the air. The destruction of coyote dens is very effective in curtailing predation.

Due to the grants from OHA at the State and local chapter levels and the additional funding from the other sources noted in this grant proposal we are now getting back to the level of our FY 2001 coyote take in eastern Oregon with 3,058 taken by aircraft in 2005-2006. FY 2001 was the last year both planes were running full steam with no funding problems. State cuts hit us hard in FY 2002 and greatly reduced our ability to fund our aerial program. The number of coyotes taken via the aircraft in 2005-2006 totaled 3,058, highest over the past 10 years. If the OHA grants continue, I am confident the other sources of funds would also continue, thus enabling us to meet or exceed our coyote take in FY 2005-2006.

There is a two page summary chart for 2005-2006 showing hours flown and coyotes taken, broken down by county attached to this grant package.

Wildlife Services covered the expenses of the 270 hours of ferry time/training and maintenance flight time associated with this project.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report (continued)**

3. Summarize how OHA Grant and Grantee funds were spent on this project (indicate any changes from proposed to actual spending activities):

<u>Expenditure Category</u> (i.e. materials, labor, equipment, etc.)	<u>OHA Grant Funds</u>	<u>Other Grantor Funds</u>	<u>Grantee Funds</u>	<u>Total Cost</u>
	\$25,500*	\$26,250	\$149,600	\$201,350**

\*Note: There was actually a total \$25,000 plus in OHA funds available directly through the OHA State Grant of \$10,000 and \$15,000 from local OHA Chapters. The Crook County chapter of OHA provided \$2,000, but because we did not fly as much as planned we used only \$1,000 with the balance remaining in trust for use next year. Also, it should be noted that the Portland Chapter of OHA provides funding directly to the Wallowa County Predator District which helps pay for some of the aerial hunting we conduct in that county. Harney County has initiated the creation of a \$10,000 trust to be replenished annually over the next few years.

\*\*Note: The \$26,250 in other Grantor funds used came from private ranchers/landowners and Safari Club International, the Mule Deer Foundation and County government. OHA funds were used with other Grantor funds as described in the 2005 Grant proposal in counties identified by OHA with input from ODFW. Grantee funds were used to cover ferry time, flight time associated with training and maintenance, equipment upgrades, administrative costs and salary & benefits of pilots and gunners when they were not conducting aerial hunting missions associated with this project.

A final accounting of expenditures will be available in September when final accounting of our aviation expenses will be complete.

4. Describe the educational opportunities provided through this project (if applicable):  
This project is an opportunity to educate the legislative and political figures on the importance of sportsmen and ranchers in providing habitat and funding for wildlife management. The project is fostering good relations between the hunting and ranching community resulting in more hunting opportunities.

5. Describe how this project has benefited wildlife and/or wildlife habitat:  
Wildlife Services has evaluated the benefit:cost ratio of coyote control to protect game species and has found predation management activities to protect wildlife show benefit:cost ratios ranging from 2:1 to 22:1. Predation management at times is key to game populations reaching management objectives developed by wildlife managers.

Wildlife Services will continue to coordinate with ODFW Biologists to determine where benefits to both game and livestock may be realized when aerial hunting of coyotes is conducted.

6. Describe how the project has benefited you as a landowner (...or conservation group, association, agency, cooperator, educational institution, etc.)  
Wildlife Services can use OHA funds and rancher funds to support our very important aerial hunting tool in Eastern Oregon. We can effectively address livestock killing with our aircraft which frees up time of our field people to address other wildlife conflicts.

7. If a research paper or report was a product of this project, please attach a copy.

8. If photographs were taken of the completed project, please attach copies.

10. Additional comments:

We are available to make a presentation at your September Board meeting or local chapter meetings.

Grantee Signature:

David E. Williams

**Please return completion report to:**

President

Grantee name and title:

State Director

Oregon Hunters Association

P.O. Box 1706

Date:

7/19/06

Medford, OR 97501

# FY06 OHA Aerial Hunting

County	Hours												Total Hours	
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep		
Crook					8.2	4.8		3.5	10.3					26.8
Deschutes														0
Jefferson							4.5							4.5
Gilliam				3.7	5.2	5	6.1	4.8						24.8
Harney	3.1	17.1	18.2	18.6	26.3	20.2	6.4	12.6	13.2					135.7
Klamath		4		6.8			6.6	1	3					21.4
Lake		3.3	2.7	7.1	2.5	8.6	4	10.5	8.7					47.4
North Malheur	1.5		6	3	19.7		16.3	9.1	19.5					75.1
South Malheur	4			4.5	3.1			7.4						19
Sherman					2	1.2		6.4						9.6
Morrow			2.3	2.1	6.9	6.9	6.9	4.5	2.6					32.2
Umatilla			6.5	3.8	15.1	20.3	17.5	18.4	3.8					85.4
Union								2.3						2.3
Wallowa			5.5		10.3		6	6.2	3.8					31.8
Wasco					7.3	4.2	3.7							15.2
Wheeler						0.3		2.8						3.1
<b>Total</b>	<b>8.6</b>	<b>24.4</b>	<b>41.2</b>	<b>49.6</b>	<b>106.6</b>	<b>71.5</b>	<b>78</b>	<b>89.5</b>	<b>64.9</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>534.3</b>

Coyotes

County	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total Coyotes
Crook					51	13		17	52				133
Deschutes													0
Jefferson							1						1
Gilliam				11	24	12	16	9					72
Harney	39	265	110	120	177	140	62	32	32				977
Klamath		34		41			27		4				106
Lake		37	42	73	14	69	12	48	33				328
North Malheur			81	29	116		45	17	27				315
South Malheur	33			63	20			27					143
Sherman					23	1		22					46
Morrow			17	20	46	36	20	5	7				151
Umatilla			30	37	105	123	75	79	20				469
Union								5					5
Wallowa			55		95		41	29	8				228
Wasco					43	21	12						76
Wheeler								8					8
<b>Total</b>	<b>72</b>	<b>336</b>	<b>335</b>	<b>394</b>	<b>714</b>	<b>415</b>	<b>311</b>	<b>298</b>	<b>183</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3058</b>



Oregon Hunter's Association  
P.O. Box 1706  
Medford, OR 97501

July 19, 2007

United States  
Department of  
Agriculture

Marketing and  
Regulatory  
Programs

Animal and  
Plant Health  
Inspection  
Service

Wildlife  
Services

Oregon State Office

6135 NE 80<sup>th</sup> Ave.  
Suite A-8  
Portland, OR 97218  
(503) 326-2346

Dear Board of Directors:

Enclosed you will find a proposal to renew the grant Wildlife Services (WS) has received the past 5 years from the Oregon Hunter's Association (OHA). I am requesting \$15,000 from OHA and hope to continue securing additional financial support from local OHA Chapters and other sportsmen groups as we have the past 4 years. These funds will be used to help support our aerial hunting program from October 2007 through early July 2008. This year, we continued to get significant financial support from private ranchers and we continue to receive funding from Safari Club International (SCI). Over 124 different ranchers have paid in to aerial hunting the past few years. This year we will seek renewal of funding from the Mule Deer Foundation of eastern Oregon and western Idaho. The Foundation for North American Wild Sheep (FNAWS) has also expressed interest in providing financial support for our aircraft. I mention this because I want to give OHA credit for supplying the initial cost share funds that have generated the interest and willingness of ranchers other sportsmen to participate in supporting our aerial hunting activities. This cooperatively funded program is proving very successful despite it being a radical departure from the traditional program fully funded with federal dollars.

This year we will increase our hourly rate to \$150/hour. Our cost of doing business has increased; fuel, salaries and ammunition costs have all increased significantly. Aerial hunting activities will continue to be coordinated with local ODFW Biologists, OHA representatives, other participating sportsmen groups and landowners/managers. It is our hope that we can continue to expand on the success we have had the past 5 years and use an increase in OHA, other sportsmen groups and private rancher/landowner money to benefit livestock, wildlife species and hunter/landowner relationships. OHA money will continue to be used on private and public land to protect livestock and incidentally benefit wildlife or we could specifically fly for game protection and enhancement as described in the grant application.

The application explains how predator management can in certain situations be very effective in enhancing game populations while being cost effective. Aerial hunting is the principal tool that WS uses to address predation management to protect game herds in cooperation with various state and federal agencies. It is a very selective and effective tool that has been documented to help wildlife agencies enhance game populations. Here in Oregon a good example of the benefits of aerial hunting to antelope herds is Beaty Butte Unit (West), ODFW Unit #70 and the Warner Unit,

ODFW Unit #74 where we have focused OHA and SCI funding to conduct aerial hunting. Based on the ODFW 2006 annual report of Antelope Trend Inventory from the Lake District the number of kids per 100 does in both units was 70, far surpassing other units. We have flown these areas with OHA funds and Safari Club International funds the previous two years. The report also indicated that the Beaty Butte (W) and Warner units have a significantly higher count of antelope per mile with counts of 8.4 and 9.8 antelope per mile respectively. These counts are significantly higher than units we do not aerial hunt. A copy of the ODFW report is provided.

We will be available to present a project completion presentation at your September Board meeting or we can simply print a copy of a presentation for distribution to the OHA Board.

Within the enclosed application/project completion report and the spread sheets documenting hours flown and coyotes taken by month, by county you will find that we continue to expand on where we are conducting aerial hunting along with increasing the number of hours and coyotes taken through the support of OHA. We now have two veteran crews that are very effective. We will be heading in to the 07-08 aerial hunting season with two well seasoned crews ready to continue improving our track record.

I look forward to the continuation of our cooperative effort to manage coyote predation for the mutual benefit of wildlife and livestock.

Sincerely,



David E. Williams  
State Director

ENCL:



# OREGON HUNTERS ASSOCIATION

P.O. BOX 1706 • Medford, OR 97501-0252 • (541) 772-7313 • FAX (541) 772-0964

OHA website: [www.oregonhunters.org](http://www.oregonhunters.org) • e-mail address: [oha@ccountry.net](mailto:oha@ccountry.net)

David E. Williams  
USDA-APHIS-Wildlife Services  
6135 NE 80th Avenue, Suite A8  
Portland, OR 97218

RECEIVED  
JUL 23 2003

July 23, 2003

Thank you for your grant application and project proposal titled Incidental Benefits of Livestock Predation Management for Wildlife Species. We are pleased to inform you that your application has been approved in the amount of \$15,000.

For funds disbursement, please contact (b)(6) the OHA office at (541) 772-7313.

Congratulations!

7/29/03

Told (b)(6) that we would not request the OHA funds till March 04. She made a note in our grant folder and said the money will be there in March.

Dee



*Arlene } Office Staff  
Cindy }*

# OREGON HUNTERS ASSOCIATION

P.O. BOX 1706 • Medford, OR 97501-0252 • (541) 772-7313 • FAX (541) 772-0964

OHA website: [www.oregonhunters.org](http://www.oregonhunters.org) • e-mail address: [oha@ccountry.net](mailto:oha@ccountry.net)

RECEIVED  
DEC 18 2002

David Williams ~~or~~, State Director  
USDA-APHIS-Wildlife Services  
6135 NE 80th Avenue, Suite A8  
Portland, OR 97218

December 13, 2002

Thank you for your grant application and project proposal titled Incidental Benefits of Livestock Predation Management for Wildlife Species. We are pleased to inform you that your application has been accepted.

For funds disbursement, please contact (b)(6) the OHA office at (541) 772-7313.

Congratulations!

We wish you the best of luck in your future endeavors.



Oregon Hunter's Association  
P.O. Box 1706  
Medford, OR 97501

June 28, 2002

Dear Board of Directors:

Enclosed you will find a proposal for the Oregon Hunter's Association (OHA) to consider at the local and/or state level. The proposal is to have OHA provide funding to help support our aerial hunting program. OHA funding could be helpful in restoring cuts to our aerial hunting hours due to a potential \$90,000 cut in Oregon Department of Agriculture (ODA) funding to the USDA-APHIS-Wildlife Services (WS) during the last year of the current state biennium budget. Our aerial hunting program may have to be cut by 70%. OHA funding could be used locally to protect livestock and incidentally benefit wildlife or we could specifically fly for game protection and enhancement as described in the grant application. Any funding OHA provides would be used as agreed upon by OHA and WS. Activities would be coordinated with local ODFW Biologists, OHA representatives, and land owner/managers.

I did not want to be presumptuous in requesting a specific amount of money. Rather, I wanted to use the application process to express our ability to work with OHA to protect game species. The application explains how predator control can in certain situations be very effective in enhancing game populations while being cost effective. The principal tool that WS uses to address predation management to protect game herds cooperation with various state and federal biologists is aerial hunting. It is a very selective and effective tool that has been documented to help wildlife agencies enhance game populations. I have identified the cost of conducting aerial hunting for this proposal to be \$138/hr; with the total hours and cost undetermined. This is up to OHA. We will work with OHA to develop an agreement to use OHA funding.

Within the application I have provided documentation and references where predator management has proven successful and cost effective. Also attached to the grant application are some charts and graphs that illustrate how many coyotes and by which method we remove coyotes in eastern Oregon.

I look forward to visiting with OHA July 20<sup>th</sup> in Salem. If you have any questions regarding this grant application please give me a call.

Thanks for considering this grant application.

David E. Williams  
State Director

Encl:





United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Wildlife  
Services

Oregon State Office  
6135 NE 80<sup>th</sup> Avenue  
Suite A8  
Portland, OR 97218  
TEL 503.326.2346  
FAX 503.326.2367

February 7, 2003

Oregon Hunter's Association  
P.O. Box 1706  
Medford, OR 97501-0252

Dear OHA Representative:

I have enclosed three (3) copies of a cooperative agreement between our organizations that outlines how the \$15,000 OHA grant awarded to USDA-APHIS-Wildlife Services will be used and the responsibilities of our respective organizations. This agreement and financial work plan format is what we use for all of our cooperatively funded projects here in Oregon. Please review the documents, sign and return all 3 copies of the cooperative agreement and the financial work plan. We will return a fully executed copy of the documents for your records.

I have been keeping (b)(6) OHA (b)(6) informed of planning and coordination of aerial hunting activities associated with OHA grant money.

If you have any questions please call me. Wildlife Services greatly appreciates OHA's decision to award us with the grant.

Sincerely,

David E. Williams  
State Director

Encl:

(b)(6)



COOPERATIVE SERVICE AGREEMENT  
BETWEEN  
OREGON HUNTER'S ASSOCIATION (OHA)

UNITED STATE DEPARTMENT OF AGRICULTURE (USDA)  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE (APHIS)  
WILDLIFE SERVICES (WS)

ARTICLE 1

The purpose of this Agreement is to conduct aerial hunting projects for livestock predation management that will provide incidental benefits for wildlife species in Eastern Oregon.

ARTICLE 2

Authority exists under the Animal Damage Control Act of March 2, 1931, (7USC 426-426b and 426c, as amended) and the Rural Development, Agriculture, and Related Agencies Appropriations Act, 1988 (P.L. 100-202) for APHIS-WS to cooperate with states, counties, individuals, and public and private agencies, organizations, and institutions to control damage caused by wild species injurious to agriculture, horticulture, forestry, animal husbandry, wildlife and public health and safety.

ARTICLE 3

The OHA and APHIS-WS Agree:

1. To confer periodically to plan the use of OHA funding for aerial hunting missions in Eastern Oregon for the incidental benefits of livestock predation management for wildlife species in Eastern Oregon.
2. That the implementation of the approved wildlife damage control work plan will be the responsibility of APHIS-WS and that this agreement may be amended as mutually agreed.

ARTICLE 4

The OHA Agrees:

1. To provide the requested funds to APHIS-WS by a mutually agreed upon date for the costs associated with accomplishing the wildlife damage control project as outlined in the Work Plan/Budget.

ARTICLE 5

APHIS-WS Agrees:

1. To provide aircraft, personnel and other resources necessary to implement the wildlife damage control project.

2. To provide the OHA with special reports indicating where OHA funds were expended and the results of projects funded by OHA.

#### ARTICLE 6

This Agreement is contingent upon passage by Congress of an appropriation from which expenditures may be legally met and shall not obligate APHIS upon failure of Congress to so appropriate. This Agreement also may be reduced or terminated if Congress only provides APHIS funds for a finite period under a continuing resolution.

#### ARTICLE 7

Nothing in this Agreement shall prevent any other State, organization, or individual from entering into separate agreements with APHIS-WS for the purpose of controlling predatory animals.

#### ARTICLE 8

Pursuant to Section 22, Title 41, United State Code, no member of or delegate to Congress shall be admitted to any share or part of this Agreement or to any share or part of this Agreement or to any benefit to arise therefrom.

#### ARTICLE 9

All animal damage control activities will be conducted in accordance with applicable Federal, State, and local laws and regulations.

The performance of wildlife damage management actions by APHIS-WS under this agreement is contingent upon a determination by APHIS-WS that such actions are in compliance with the National Environmental Policy Act, Endangered Species Act, and any other applicable environmental statutes. APHIS-WS will not make a final decision to conduct requested wildlife damage management actions until it has made the determination of such compliance.

#### ARTICLE 10

APHIS-WS will hold the Cooperative harmless from any liability arising from the negligent act or omission of a Government officer or employee acting within the scope of his or her employment to the extent compensation is available pursuant to the Federal Tort Claims Act (FTCA), 28 USC 2761 *et. seq.*, except to the extent that aforesaid liability arises from the negligent acts or omission of the Cooperative, its employees, agents or subcontractor(s). Such relief shall be provided pursuant to the procedures set forth in the FTCA and applicable regulations.

#### ARTICLE 11

Authorized auditing representatives of the Cooperative shall be accorded reasonable opportunity to inspect the accounts and records of APHIS-WS pertaining to such claims for reimbursement to the extent permitted by Federal laws and regulations.

## ARTICLE 12

This Agreement may be amended at any time by mutual agreement of the parties in writing. It may be terminated by either party upon 60 days written notice to the other party. If the Cooperative does not for any reason deposit the necessary funds, APHIS-WS is relieved of the obligation to continue any operation under this Agreement.

---

State Director  
USDA, APHIS, Wildlife Services  
Portland, Oregon

---

Date

---

Representative  
Cascade Animal Damage Control Cooperative  
Sweet Home, Oregon

---

Date

---

Regional Director  
USDA, APHIS, Wildlife Services  
Lakewood, Colorado

---

Date

## WORK PLAN AND PROPOSED BUDGET

### USDA, APHIS, WILDLIFE SERVICES and OREGON HUNTER'S ASSOCIATION (OHA)

#### Introduction

In accordance with the Cooperative Service Agreement between Oregon Hunter's Association (OHA) and the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS), this Work Plan sets forth the objectives, activities and budget for the wildlife damage control project.

#### Program Objectives

The objective of the wildlife damage control project is to conduct aerial hunting projects to manage predation on livestock that will provide incidental benefits to wildlife species in Eastern Oregon.

#### Plan of Action

The objectives of the wildlife damage control program will be accomplished in the following manner:

1. APHIS-WS will provide an aircraft, a pilot, a Wildlife Specialist, ammunition and supplies to conduct aerial hunting projects. Projects will be conducted in areas mutually identified by OHA and WS. Projects will be conducted on lands that WS has written agreements/permission to control coyotes.
2. The project will run from January 1, 2003 through June 30, 2003.
3. The WS State Office in Portland, Oregon will be responsible for day-to-day supervision and monitoring of the program.
4. APHIS-WS will provide reports on expenditures of OHA money and results of projects conducted with such funding.
5. APHIS-WS will cooperate with the Oregon Department of Agriculture (ODA), and the Oregon Department of Fish and Wildlife (ODFW), the U.S. Fish and Wildlife Service (FWS), county and local city governments and other entities to ensure compliance with Federal, State and local laws and regulations.
6. The performance of wildlife damage management actions by APHIS-WS under this agreement is contingent upon a determination by APHIS-WS that such actions are in compliance with the National Environmental Policy Act, Endangered Species Act, and any other applicable environmental statutes. APHIS-WS will not make a final decision to conduct requested wildlife damage management actions until it has made the determination of such compliance.

7. The Cooperator will provide APHIS-WS \$15,000 by a mutually agreed upon date to support this wildlife damage control project.

Proposed Budget Plan

Listed below are the costs associated with conducting this project:

Salary & Benefits of pilot and crew member,  
Fuel & oil, and ammunition  
@ a flat rate of \$138/hour.  
Approximately 109 hours will be flown \$15,000

TOTAL COSTS \$15,000

---

State Director  
USDA, APHIS, Wildlife Services  
Portland, Oregon

---

Date

---

Representative  
Oregon Hunter's Association

---

Date

---

Regional Director  
USDA, APHIS, Wildlife Services  
Lakewood, Colorado

---

Date



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Wildlife  
Services

Oregon State Office  
6135 NE 80<sup>th</sup> Avenue  
Suite A8  
Portland, OR 97218  
TEL 503.326.2346  
FAX 503.326.2367

February 12, 2003

(b)(6)

Oregon Hunter's Association

(b)(6)

Dear (b)(6)

I have enclosed three (3) copies of a cooperative agreement between our organizations that outlines how the \$15,000 OHA grant awarded to USDA-APHIS-Wildlife Services will be used and the responsibilities of our respective organizations. This agreement and financial work plan format is what we use for all of our cooperatively funded projects here in Oregon. Please review the documents, sign and return all 3 copies of the cooperative agreement and the financial work plan. We will return a fully executed copy of the documents for your records.

I have been keeping (b)(6) OHA (b)(6) informed of planning and coordination of aerial hunting activities associated with OHA grant money.

If you have any questions please call me. Wildlife Services greatly appreciates OHA's decision to award us with the grant.

Sincerely,

David E. Williams  
State Director

Encl:





(b)(6) oregonhunters.org> on 06/27/2003 02:40:22 PM

To: David E Williams/OR/APHIS/USDA@USDA  
cc:

Subject: Re: Dave Williams

Duh! Sorry

My address is the same as you would mail your grant applications. PO Box 1706, Medford, Or 97501. You do not need to mail an extra copy. Also the grant application is available online at [www.oregonhunters.org](http://www.oregonhunters.org) and under OHA Grants.

See ya

----- Original Message -----

From: "David E Williams" <David.E.Williams@usda.gov>  
(b)(6) oregonhunters.org>

Sent: Friday, June 27, 2003 12:31 PM

Subject: Re: Dave Williams

(b)(6)

> I need your mailing address, not your email.

>

> Dave Williams

>

>

>

>

(b)(6) oregonhunters.org> on 06/27/2003 10:57:21 AM

> To: David E Williams/OR/APHIS/USDA@USDA

> cc:

>

> Subject: Re: Dave Williams

>

(b)(6) oregonhunters.org

>

> ----- Original Message -----

> From: "David E Williams" <David.E.Williams@usda.gov>

(b)(6) oregonhunters.org>

> Sent: Thursday, June 26, 2003 8:47 AM

> Subject: Re: Dave Williams

>

>

> > What's your mailing address?

> >

>

>

>

>

>

(b)(6)

(b)(6)

iol.com>

<David.E.Williams@aphis.usda.gov>;

(b)(6)

(b)(6) yahoo.com>

Sent: Friday, January 30, 2004 10:59 AM

Subject: Aerial gunning

(b)(6)

thanks for donating money to the aerial gunning program. I spoken with Dave Williams and told him that the money from KFalls should be use in KFalls and Lake County and the money from Hoodview and Pioneer chapters will be use in Umatilla County. It is my understanding that the Umatilla County money will be used for killing coyotes on private lands from which the deer and elk are likely to move into the Ukiah unit come Spring. Your checks should be made out to USDA/APHIS/WILDLIFE SERVICES, ATTN DAVE WILLIAMS, 6135 NE 80th Ave, Ste A8, Portland, Or 97218. Again, thanks for your help.

RECEIVED  
FEB 2 2004

OREGON HUNTERS ASSOC  
P.O. BOX 324  
MOLALLA, OREGON 97038-0324

Pioneer chapter

2/19/04

515

96-B/1232

Pay to the Order of USDA/Aphis/Wild life Services Date

Five hundred + 00/100 \$ 500.00

Dollars

Molalla Branch  
1-800-895-3345  
wcb.com

WEST COAST BANK

For AERIAL GUNNING

(b)(4)

(b)(4)

(b)(6)

envelope addressed by Oregon City

(b)(6)



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Wildlife  
Services

6135 NE 80<sup>th</sup> Ave., Suite A8  
Portland, OR 97218  
(503) 326-2346 or 2367 Fax

Oregon Hunter's Association  
P.O. Box 1706  
Medford, OR 97501

March 24, 2004

Dear Board of Directors:

Enclosed you will find a fully executed copy of this year's Work Plan And Proposed Budget for the Cooperative Service Agreement between Oregon Hunter's Association (OHA) and USDA-APHIS-Wildlife Services (WS). The original was sent to (b)(6) OHA Board of Directors. The Cooperative Service Agreement and this year's Work Plan outline the objectives, activities, and budget for the aerial hunting project that the \$15,000 OHA Grant awarded to Wildlife Services helps to fund.

At this time I am requesting the \$15,000 from OHA. Please make a check payable to USDA-APHIS-Wildlife Services and mail it to my office.

The grant has been instrumental in our agency's ability to maintain our aerial hunting program in eastern Oregon. Ranchers who also contribute to the aerial hunting program are appreciative of OHA's contributions and we are pleased to be able to deliver services that mutually benefit ranchers and sportsmen. I look forward to reporting our accomplishments to OHA when our project is completed.

Sincerely,

David E. Williams  
State Director

ENCL:





(b)(6)

**aol.com**

To: David.E.Williams@aphis.usda.gov

cc:

04/16/2004 07:13 PM

Subject: Capitol Chapter

Dave, the Capitol Chapter would like you to send them a bill for \$1,000.00 and then they will send you the check. This money was to be used at the Morrow county aerial gunning. The mailing address (b)(6)  
(b)(6) . I hope that your pilots and gunners have been enjoying a great season. Don



(b)(6)  
net>

"  
:country.

To: <David.E.Williams@aphis.usda.gov>  
cc:  
Subject: Re: aerial hunting grant

06/14/2004 12:33 PM

Grants that have been submitted according to the procedure and by the deadline will automatically be placed on the agenda. No need to go through (b)(6)

(b)(6)

Oregon Hunters Association  
Office: 541-772-7313

(b)(6)

----- Original Message -----

From: <David.E.Williams@aphis.usda.gov>  
To: (b)(6) :country.net>  
Sent: Monday, June 14, 2004 11:51 AM  
Subject: Re: aerial hunting grant

(b)(6)

> Thanks for the info. I will get hold of Joe to try and get on the  
> September board meeting agenda. I will contact you if I have difficulty  
in  
> getting the application of the web or have questions.

> Dave Williams  
> (503) 326-2346

> (b)(6) ;"  
> :coun To:  
<David.E.Williams@aphis.usda.gov>  
> try.net> cc:  
> Subject: Re: aerial  
hunting grant

06/14/2004 11:28  
AM

> Hi Dave,

> Good to hear from you.

> Our summer board meeting is on July 17 in Redmond. The Board adopted new  
> grant application procedures and reviews these in March and September.

For

> September, grant applications must be submitted by August 1 with a Chapter  
> review and recommendation and Board member review and recommendation. The

> complete policy, procedure and grant application is on our web site  
> www.oregonhunters.org. If you can't pull it off the web site, let me  
know.

(b)(6) hotmail.com and  
(b)(6) Board of Directors sets the board meeting  
> agenda. j\_dallabona@yahoo.com

> If you have any questions, please call or email me. (b)(6)

> Oregon Hunters Association  
> Office: 541-772-7313

(b)(6)

> ----- Original Message -----  
> From: <David.E.Williams@aphis.usda.gov>  
> To: (b)(6) ccountry.net>  
> Sent: Thursday, June 10, 2004 1:04 PM  
> Subject: aerial hunting grant

(b)(6)

> > How are things?  
> >  
> > It is getting towards the end of our aerial hunting season and soon we  
> will  
> > be compiling information to report to OHA. Then I hope to be able to  
> > report results to the OHA Board as we have in the past during your  
summer  
> > meeting. When is your summer Board meeting and is it possible for us to  
> > make a presentation and request a renewal of our grant?  
> >  
> > Can you provide me with an electronic version of the OHA grant  
> application  
> > or direct me to where I can get one?  
> >  
> > If you want to discuss how our use of OHA funds or have some questions,  
> > please don't hesitate to call me, (503) 326-2346.  
> >  
> > We really appreciate the support that OHA has provided at the State and  
> > local chapter levels and look forward to a continued working  
relationship  
> > with OHA. We are pleased to deliver a service that mutually benefits  
> > sportsmen and ranchers.

> > Dave Williams  
> > State Director

(b)(6)



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Summary Page**

1. Project Title: Incidental Benefits of Livestock Predation Management for Wildlife Species

2. Applicant: USDA-APHIS-Wildlife Services

Address: 6135 NE 80<sup>th</sup>, Suite A-8

City/State/ZIP: Portland Telephone: (503) 326 - 2346

E-mail address: david.e.williams@usda.gov

Signature: David E. Williams Title: St. Director Date: 07 /21 /04

3. Project Location: Eastern Oregon on public and private land

County: \_\_\_\_\_ Township, Range, Section(s): \_\_\_\_\_

4. Reviewed and recommended by OHA \_\_\_\_\_ Chapter.  
Chapter recommends \_\_\_\_\_ Approval \_\_\_\_\_ Denial Attach comments, if any.

Chapter President signature: \_\_\_\_\_ Date: \_\_\_\_\_

Regional state board signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Regional state board director recommends \_\_\_\_\_ Approval \_\_\_\_\_ Denial Attach comments, if any.

5. Type of Project: Wildlife Management: X Habitat Improvement: \_\_\_\_\_ Hunter Education: \_\_\_\_\_

Other: \_\_\_\_\_

6. Proposed Start Date: November 2004

7. Estimated Total Cost of Project: \$ 124,000

8. OHA Funding requested: \$ 15,000

9. OHA Volunteer Hours proposed: \_\_\_\_\_

10. Briefly explain the purpose of the project: Conduct aerial hunting of coyotes to protect livestock in areas where ODFW has identified coyotes as the reason game management objectives have not been met, or conduct aerial hunting of coyotes for the incidental benefits to game species. ODFW can request USDA-APHIS-WS to help reduce predation on game populations.

11. Complete and attach proposed project detail pages, and include additional maps, photos etc. as needed.

Send the application to: Oregon Hunters Association  
Attn: Grant Committee  
P.O. Box 1706  
Medford, OR 97501

Board Action: Denied \_\_\_\_\_ Approved \_\_\_\_\_ For the amount of \$ \_\_\_\_\_  
Conditions:

Board Chair signature: \_\_\_\_\_ Date: \_\_\_\_\_ Assigned to regional board  
member \_\_\_\_\_ for coordination.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail**

**Project Title:** The Incidental Benefits of Livestock Predation Management for Wildlife Species

1. **Background:** (Describe the wildlife management and or habitat challenge this project will address.)

Locally in Eastern Oregon, ODFW Biologists and sportsmen are concerned over the decline of deer and antelope. Where predation is suspected to be a contributing factor, predation management can be a beneficial wildlife management tool when selectively and strategically applied. Aerial hunting of coyotes can be a very selective coyote removal tool that USDA-APHIS-Wildlife Services can use to address predation.

Predation is a naturally occurring phenomenon. There is abundant evidence that predator and prey numbers fluctuate in healthy ecosystems and that the number of either is unlikely to become so low or so high as to warrant concern (e.g., Errington 1967). However, there are also many instances in which ecosystem health has been negatively affected by weather, fire, human disturbance, removal of top predators, introductions of exotic flora or fauna, etc. In these circumstances, predators may have significant negative impacts on prey (Hecht and Nickerson 1999) and populations of the latter may be driven significantly low to draw attention of managers, and, ultimately, the expenditure of public and private funds. One tool that can be implemented to benefit threatened prey species and to improve the recruitment of younger individuals into the population is predation management.

**Management to improve fawn survival-** Both mule deer (*odocoileus hemionus*) and pronghorn (*Antelocapra americanus*) fawn survival can be increased by management activities that decrease predation by coyotes (e.g., Haily 1979, Knowlton 1976). For the latter, predation of unprotected fawns can approach 90%, although factors such as alternative prey, age structure of the coyote population and synchrony of fawning all play a factor (Dunbar et al. 1999, Byers 1997).

When predation management programs are implemented, pronghorn fawn survival and the recruitment of young individuals into the adult population can increase dramatically. Smith et al. (1986) noted that predation management could result in 100% annual increases in population size. In general, management activities that remove coyotes after breeding territories are established but prior to fawning can double fawning success.

Similarly, mule deer fawn survival can be increased when coyote populations are seasonally suppressed in fawning habitat. In Utah, coyote predation management was applied to deer hunt units where populations were depressed (<50% of herd objectives as specified by the Utah Division of Wildlife Resources), fawn recruitment was low (<50 fawns:100 does) and the population trend was stable to declining (Utah Division of Wildlife Resources 1996). In one such unit, fawn survival increased from 30.75 fawns:100 does to 51:100. In a third, fawn survival increased from 50:100 to 64:100 as a result of coyote management efforts.

**Management to protect endangered species-** Bighorn sheep (*Ovis Canadensis*) are affected by lions throughout their range. In California, lion predation has resulted in the emergency listing of this species, to allow for lion management. Restoration of bighorn sheep in Utah has been limited due by lion predation, and removal of lions is believed to be instrumental to the success of restored populations (Utah Division of Wildlife Resources 1996).

Black-footed ferret (*Mustella nigripes*) populations are severely impacted by coyote predations, especially following restoration efforts (Utah Division of Wildlife Resources 1995). In studies of restoration success in South Dakota, 30 day survival rates averaged 31% in the absence of predation management, but 67.5% with predation management in place. Based upon an introduction of 50 ferrets, the difference in survival with and without predation management and using an average individual value of \$29,132, 18 ferrets would be saved with predation management producing \$524,376 in financial benefit. Perhaps more significant, since nearly all of the ferret survival occurred in the presence of predation management, the success of the entire restoration effort arguably could be said to hinge on the application of this one management tool.

**Management to protect upland birds and nesting waterfowl-** Upland game bird populations may be affected by predation, including the direct predation of chicks and adults as well as nest predation. Again, while predation may

be natural phenomena, several species have been shown to be negatively impacted. In one population of sage grouse in Utah, annual adult mortality due to predation (primarily non-native red fox) was 82% without fox control in place while only 33% with fox control (Bunnell and Flinders 1999). Grouse nests are also predated. Ten of 19 (53%) sage grouse nests on Parker Mountain in Utah were destroyed by ravens (T. A. Messmer, pers. Commun.). In an artificial nest predation study in Idaho sage grouse habitat, 28% of nests placed in a predator control area were destroyed while 98% were destroyed in an adjacent no control area (Collinge and Maycock, 2000).

In two study sites in southern Utah, pheasant (*Phasianus colchicus*) populations doubled in treatment (predator control) areas relative to nearby no-treatment areas. In northern Utah, a similar study increased pheasant on areas with good pheasant habitat, but an overall increase was not noted (Frey et al. 2000). The conditional nature of the northern Utah result was attributed to the small size of the study plots involved, and the amount of pheasant habitat available for treatment.

Production by nesting waterfowl also can be improved by predation management. Adult survival during the nesting season also can be improved. Red fox alone are reported to kill 18% of nesting hen mallards in North Dakota annually, and kill an estimated 900,000 adult ducks (predominately hens) each year in the prairie pothole region. In a predator removal demonstration project, nest success in the treatment (predator removal) site was 71% while nest success on the no treatment site was 14%. The difference was compounded by the treatment site containing 166% more nests than the no treatment site, which could indicate that predation management could lead to increased productivity due to nest site selection by duck pairs as well as decreasing actual predation. Numerically, 178 nests successfully hatched on the treatment site, compared to only 21 nests on the no treatment site, an 847% increase in total nest productivity. Cost for treatment was \$2.00/acre, assuming the benefits extended only to the treatment site itself. If the benefit of predator removal extended outside of the treatment area 2 miles, costs dropped to \$0.48/acre (Jones 1994).

#### **Case Studies of Big Game Protection-**

The present discussion focuses on the cost of conventional predation management and the effect applications of these methods have on wildlife numbers. Much of the best available data has been generated in Utah; a series of case studies is presented below. Each of the areas discussed is a big game management unit that was selected by the Utah Division of Wildlife Resources for predation management activity. Selection highlights an important caveat which, although previously stated, is worth reiteration here. Specifically, the timing of predation management, habitat characteristics, game abundance relative to carrying capacity, and a variety of other factors can and do influence game populations. Like any wildlife management tool, managers must select methods carefully so that the critical features limiting recruitment are addressed.

**Henry Mountains mule deer.-** Using aerial hunting from fixed and rotary wing aircraft and coyote removals by ground personnel, the cost of fawn protection from coyotes was \$6.96 per sq. mile treated in 1997 and \$8.69 per sq. mile in 1998. Overall, the cumulative cost for two years of fawn protection in this unit was \$15,841. Recruitment was improved substantially; herd size increased by 600 animals, reversing a 5 year decline (Bodenchuk 1999). The civil value assigned to mule deer is \$300. Accordingly, the net benefit for two years work was \$180,000, permitting calculation of a benefit:cost ratio of 11.4:1.

**Bookcliffs mule deer.-** Intensive hunting of coyotes on fawning grounds cost \$11,000 in 1997, or \$66,87 per sq. mile. Recruitment improved substantially, and herd size increased by 667 animals (Bodenchuk 1999). Accordingly, the net benefit was \$200,100. The benefit:cost ratio of this project was 18:1.

**Pahvant mule deer.-** Using aerial hunting and coyote removals by ground personnel, three years of deer fawn protection cost \$27,480 and resulted in an estimated increase of 2,073 fawns worth \$621,900 (Bodenchuk 1999). The benefit:cost ratio of this project was 22.6:1.

**Pronghorn.-** Pronghorn protection has been extensively evaluated, much more so than mule deer, and is nearly always considered to be cost beneficial. For example, Smith et al. (1986) evaluated the benefit:cost of predation management using the cost of pronghorn permits plus estimated hunter expenditures. A management schedule that involved the removal of territorial coyotes every other year yielded the greatest return, a benefit:cost ratio of 1.92:1. Depending on herd size, Smith et al. (1986) argued that benefits in the range of 2:1 and 3:1 could be expected.

Overall, then, the range of benefit:cost ratios for predation management to protect wildlife ranged between 2:1 and 22.6:1. In FY 1998, Wildlife Services programs in the Western Region spent \$2,936,068 (federal and cooperative combined) on this activity. Accordingly, the benefits of Wildlife Services predation management to protect wildlife ranged between \$5,872,136 to \$66,355,137.

#### **Incidental Benefits of Predation Management for Livestock Protection to Wildlife**

The example above lead to the conclusion that predation management can be a beneficial wildlife management tool when selectively and strategically applied. Since wildlife in crisis often co-exist with livestock in many areas of the west, predation management for livestock protection may have significant consequences for

wildlife species in the treatment areas. The degree of incidental benefit may depend on the timing and intensity of management efforts. Several case studies follow to illustrate this point.

In Utah, five deer management units received intensive coyote control for domestic sheep grazing on summer range (fawning range for deer). Despite a severe winter loss in 1992-93, these units averaged 74.4% of the Utah Division of Wildlife Resource's deer herd objective in 1995, an average increase in herd size of 6.4% over 1994 numbers. Three other deer management units received intensive coyote control for winter sheep grazing (winter range for the deer herd) and in 1995 averaged 50.3% of objective and were increased by 2.3% over 1994 numbers. Finally, nine deer management units received no predation management efforts by WS during the period. These units averaged 39.7% of objective and were decreased at an average of 1.1% from 1994 numbers.

In Texas, intensive coyote control for sheep and goat protection may be one cause of high deer survival and densities in the Edward's Plateau. Whether these densities are biologically good or bad depends on the degree to which deer management is concurrently applied. Unchecked deer populations overuse available forage and in turn may argue against predation management in certain areas. This final point highlights the fact that predation management can have negative effects on other species of wildlife (Kie et al. 1979).

## 2. Project Objective:

- a. What is the objective of the proposed project?  
Increase hunter opportunity through predator management and greater access to private lands.
  
- b. How will the project benefit wildlife management, habitat improvement, and/or hunters' rights?  
There will be a reduction in predation on game species in areas open to hunters. The cost sharing of this project will foster better relations between ranchers and sportsmen. More game and more hunter access will result in increased hunter opportunities in Eastern Oregon.

**Project Location:** (Attach a map and provide narrative description of the project location and how to get there from a major highway.)

Project will take place on public and private land in Eastern Oregon. Wildlife Services can conduct aerial hunting activities wherever livestock are legally present or where ODFW requests our assistance in addressing predation on game animals. Wildlife Services will secure written permission to access lands and will conduct project activities as mutually agreed upon with OHA.

**Project procedure:** (Specifically describe how the project will be conducted – use separate pages for additional information, drawings or pictures.)

Areas where game species could benefit by reducing coyote predation on young will be identified with input from ODFW District Biologists, federal land and wildlife managers, OHA and USDA-APHIS-WS biologists. OHA funds will be used to support aerial hunting of coyotes and coyote dens.

**Permits, Inter-Agency Coordination:** (Have all necessary permits been secured or applied for? Have all inter-agency coordination and approvals been initiated or secured?) USDA-APHIS-WS maintains close coordination with ODFW, ODA, USFS, BLM, USFWS and Indian Tribes.

NEPA requirements have been met to allow WS to work on private and public lands.  
USDA-APHIS-WS has authority to shoot coyotes and feral pigs from aircraft.



**PROJECT PROPOSAL AND GRANT APPLICATION**  
**Project Detail (continued)**

**Project Schedule:**

- a. Start Date: November 2004 Completion Date: July 2004
- b. List major project activities and time schedule for each.

Activity	Time (Month/Year)
-Aerial hunting of coyotes removing coyotes and locating dens for removal.	-November through early July -When deer move to wintering ground and coyote breeding season through fawning and kidding season.

**Participation:** (What organizations will participate in the project? List and describe the participation, and attach letters of commitment or verification of other grant awards to be involved in this project. You do not need to include individuals.)

Participant	Activity
ODFW	-Identify areas where predator control would benefit wildlife.
OHA	-Assist in local coordination of aerial hunting.
BLM, USFS, USFWS	-Identify areas on federal lands where project can be carried out.
USDA-APHIS-WS	-Conduct and report on aerial hunting operations and results.
Private ranchers/landowners	-As many as 124 individuals will contribute funding to support aerial hunting in counties where OHA funding will be used.

**Funding:**

- a. List other sources and amount of project funds (include in budget on page 5).
  - Federal funds (\$103,000) To cover salaries and benefits of pilots and gunners, when they are not flying, all of the ferry time expenses and overhead expenses. This allows all non federal funds to be used to support aerial hunting hours flown.
  - Local OHA Chapter funds (\$3,000)
  - Private ranchers/landowners (\$24,000)
- b. Have any conditions been placed on funds listed in "a." above, which may affect the completion of the project? If so, identify and explain.  
No, what ever OHA provides will be used as mutually agreed upon by OHA and WS.

**Project Maintenance and Monitoring:**

- a. Who will maintain the project and fund long-term maintenance and/or operation, if needed?  
USDA-APHIS-WS, contingent on federal, state and county funding.

- b. What element(s) of the project will be monitored, how often, for how long?
- Aerial hunting activities will be monitored annually for NEPA compliance.
  - Annual reports will be provided to OHA and project updates will be provided as desired by OHA.

**How will OHA be publicly recognized for its contribution to this project?**

When Wildlife Services attends livestock association meetings throughout the year we recognize OHA's support of the aerial hunting program we deliver. Livestock associations recognize the mutual benefits to livestock producers and wildlife when coyote control is jointly funded by ranchers and OHA. We have also recognized OHA's contribution to the Wildlife Services aerial hunting program at Safari International Meetings.

The cooperative relationship between OHA and private ranchers in supporting predator management is recognized by the Oregon Legislature's Ways and Means committee. Testimony describing this project during appropriations hearings was well received by the legislators on the committee.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail (continued)**

**Project Cost Estimate:**

<u>Category</u>	<u>OHA Funds</u>	<u>Other Funds</u>	<u>Total Cost</u>	<u>Remarks</u>
Administration				
-Training		\$2,000	\$2,000	
-Accounting/Admin		\$3,000	\$3,000	
Construction				
Materials (Itemize)				
Supplies				
-Shotguns		\$2,500	\$2,500	
-Misc. Supplies		\$1,000	\$1,000	
-Cell phones		\$3,000	\$3,000	
Contract Services				
-Ammunition	\$15,000		\$15,000	
-Fuel & Oil				
-Regular Maintenance				
-Travel				
-Ferry Time		\$12,500	\$12,500	
-Pilot & gunner		\$65,000	\$65,000	
*NOTE: OHA funds will be used to cover the expenses for ammunition, fuel & oil, regular maintenance, aerial hunting crew salaries & benefits, and per diem for flight crews. All ferry time and salaries & benefits for aerial hunting crews when not conducting aerial hunting missions will be covered by federal funds.				
Equipment (Itemize)				
-Aircraft equipment upgrades		\$20,000	\$20,000	
<b>Total Cost</b>	<b>\$15,000</b>	<b>\$109,000</b>	<b>\$124,000</b>	



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report**

**Project Name:** Incidental Benefits of Livestock Predation Management for Wildlife Species

**Location:** Eastern Oregon on public and private lands open to hunting

**Grantee:** USDA-APHIS-Wildlife Services

**Address:** 6135 NE 80<sup>th</sup>, Suite A-8  
Portland, OR 97218

**Phone:** (503) 326-2346

**1. Briefly describe the project objective(s):**

Generate cost share funding between OHA, private ranchers and the USDA-APHIS-WS program to support aerial hunting of coyotes in eastern Oregon. OHA funds will help restore some of the aerial hunting hours that Wildlife Services have had to cut due to a reduction in funds from the Oregon Department of Agriculture. Since wildlife in crisis often co-exists with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in treatment areas.

**2. Describe the project accomplishments (indicate any changes from proposed to actual accomplishments):**

In FY 2004 (through June 1<sup>st</sup>), Wildlife Services removed 2,418 coyotes in eastern Oregon. Sixty percent (1,457) were taken with our aerial hunting program. These take figures will be updated to account for the additional take of coyotes that occurred June-July. The Wildlife Services program also removed 54 coyote dens. Many of these dens were located through the use of our aircraft conducting this project.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report (continued)**

3. Summarize how OHA Grant and Grantee funds were spent on this project (indicate any changes from proposed to actual spending activities):

<u>Expenditure Category</u> (i.e. materials, labor, equipment, etc.)	<u>OHA Grant Funds</u>	<u>Other Grantor Funds</u>	<u>Grantee Funds</u>	<u>Total Cost</u>
	\$17,500	\$19,050	\$109,000	\$145,550*

\*Note: The total OHA Grant Funds of \$17,500 includes the OHA State Grant of \$15,000 and \$2,500 from local OHA Chapters. The \$19,050 in other Grantor funds used came from private ranchers/landowners. OHA funds were used with other Grantor funds as described in the 2003 Grant proposal in counties identified by OHA. Grantee funds were used to cover ferry time, equipment upgrades, administrative costs and salary & benefits of pilots and gunners when they were not conducting aerial hunting missions associated with this project.

A final accounting of expenditures will be available in September to take in to account financial and coyote take data in June-July.

4. Describe the educational opportunities provided through this project (if applicable):  
This project is an opportunity to educate the legislative and political figures on the importance of sportsmen and ranchers in providing habitat and funding for wildlife management. The project is fostering good relations between the hunting and ranching community resulting in more hunting opportunities.
5. Describe how this project has benefited wildlife and/or wildlife habitat:  
Wildlife Services has evaluated the benefit:cost ratio of coyote control to protect game species and has found predation management activities to protect game species and has found predation management activities to protect wildlife show benefit:cost ratios ranging from 2:1 to 22:1.  
  
Wildlife Services will continue to coordinate with ODFW Biologists to determine where benefits to both game and livestock may be realized when aerial hunting of coyotes is conducted.
6. Describe how the project has benefited you as a landowner (...or conservation group, association, agency, cooperater, educational institution, etc.)  
Wildlife Services can use OHA funds and rancher funds to support our very important aerial hunting tool in Eastern Oregon. We can effectively address livestock killing with our aircraft which frees up time of our field people to address other wildlife conflicts.
7. If a research paper or report was a product of this project, please attach a copy.
8. If photographs were taken of the completed project, please attach copies.
10. Additional comments:

We are available to make a presentation at your September Board meeting or local chapter meetings. A final project report similar to the one we provided last July can be printed and sent to the Board in lieu of us appearing before the Board if so desired.

Grantee Signature: 

Grantee name and title: State Director

Date: 7/22/04

**Please return completion report to:**  
President  
Oregon Hunters Association  
P.O. Box 1706  
Medford, OR 97501



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Wildlife  
Services

6135 NE 80<sup>th</sup> Ave., Suite A8  
Portland, OR 97218  
(503) 326-2346 or 2367 Fax

Oregon Hunters Association  
P.O. Box 1706  
Medford, OR 97501

April 1, 2005

Dear Oregon Hunters:

I want to thank you for your generous \$10,000 contribution to the USDA-APHIS Wildlife Services Program. We will use your contribution to cost share aerial hunting activities in Eastern Oregon. In most Eastern Oregon counties we use OHA funds, private landowner/rancher funds and federal funds to mutually benefit ranchers and sportsmen. Umatilla and Lake County commissioners are also contributing.

To date we have received contributions from the Harney, Klamath, Josephine and Crook County Chapters. We are very appreciative of the support we have received from OHA at the State and local chapter levels. Your support helps us accomplish complex and at times controversial wildlife management activities during challenging budget times.

We will provide a project completion report at the end of our project and are happy to provide updates on our activities at your request. At this time I am enclosing a spread sheet that documents the hours flown, coyotes taken, by county, by month. The data is entered through February. I will provide the update for March in a more timely fashion.

Thank you very much,

David E. Williams  
State Director

(b)(6)

- OHA

(b)(6)





Oregon Hunters Association  
Josephine Chapter  
P.O. Box 1323  
Grants Pass, OR 97528

April 1, 2005

Dear Chapter Members:

I want to thank you for your generous \$1,000 contribution to the USDA-APHIS Wildlife Services Program. We will use your contribution to cost share aerial hunting activities in Eastern Oregon. In most Eastern Oregon counties we use OHA funds, private landowner/rancher funds and federal funds to mutually benefit ranchers and sportsmen.

We are very appreciative of the support we have received from OHA at the State and local chapter levels. Your support helps us accomplish complex and at times controversial wildlife management activities during challenging budget times.

We will provide a project completion report at the end of our project and are happy to provide updates on our activities at your request. At this time I am enclosing a spread sheet that documents the hours flown, coyotes taken, by county, by month. The data is entered through February. I will provide the update for March in a more timely fashion.

Thank you very much,

David E. Williams  
State Director





Oregon Hunters Association  
Harney Chapter  
P.O. Box 1409  
Hines, OR 97738

April 1, 2005

Dear Chapter Members:

I want to thank you for your generous \$1,000 contribution to the USDA-APHIS Wildlife Services Program. We will use your contribution to cost share aerial hunting activities in Harney County, Oregon. In most Eastern Oregon counties we use OHA funds, private landowner/rancher funds and federal funds to mutually benefit ranchers and sportsmen.

We are very appreciative of the support we have received from OHA at the State and local chapter levels. Your support helps us accomplish complex and at times controversial wildlife management activities during challenging budget times.

We will provide a project completion report at the end of our project and are happy to provide updates on our activities at your request. At this time I am enclosing a spread sheet that documents the hours flown, coyotes taken, by county, by month. The data is entered through February. I will provide the update for March in a more timely fashion.

Thank you very much,

David E. Williams  
State Director





United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Wildlife  
Services

6135 NE 80<sup>th</sup> Ave., Suite A8  
Portland, OR 97218  
(503) 326-2346 or 2367 Fax

Oregon Hunters Association  
Klamath Chapter  
P.O. Box 8161  
Klamath Falls, OR 97602

April 1, 2005

Dear Chapter Members:

I want to thank you for your generous \$1,000 contribution to the USDA-APHIS Wildlife Services Program. We will use your contribution to cost share aerial hunting activities in Klamath County. In Klamath County, as in most Eastern Oregon counties we use OHA funds, private landowner/rancher funds and federal funds to mutually benefit ranchers and sportsmen.

We are very appreciative of the support we have received from OHA at the State and local chapter levels. Your support helps us accomplish complex and at times controversial wildlife management activities during challenging budget times.

We will provide a project completion report at the end of our project and are happy to provide updates on our activities at your request. At this time I am enclosing a spread sheet that documents the hours flown, coyotes taken, by county, by month. The data is entered through February. I will provide the update for March in a more timely fashion.

Thank you very much,

David E. Williams  
State Director



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Wildlife  
Services

6135 NE 80<sup>th</sup> Ave., Suite A8  
Portland, OR 97218  
(503) 326-2346 or 2367 Fax

Oregon Hunters Association  
Ochoco Elk Hunters Chapter  
P.O. Box 1545  
Prineville, OR 97754

April 1, 2005

Dear Chapter Members:

I want to thank you for your generous \$2,000 contribution to the USDA-APHIS Wildlife Services Program. We will use your contribution to cost share aerial hunting activities in Crook County. In Crook County, as in most Eastern Oregon counties we use OHA funds, private landowner/rancher funds and federal funds to mutually benefit ranchers and sportsmen.

We are very appreciative of the support we have received from OHA at the State and local chapter levels. Your support helps us accomplish complex and at times controversial wildlife management activities during challenging budget times.

We will provide a project completion report at the end of our project and are happy to provide updates on our activities at your request. At this time I am enclosing a spread sheet that documents the hours flown, coyotes taken, by county, by month. The data is entered through February. I will provide the update for March in a more timely fashion.

Thank you very much,

David E. Williams  
State Director







Oregon Hunter's Association  
P.O. Box 1706  
Medford, OR 97501

July 30, 2005

United States  
Department of  
Agriculture

Marketing and  
Regulatory  
Programs

Animal and  
Plant Health  
Inspection  
Service

Wildlife  
Services

Oregon State Office

6135 NE 80<sup>th</sup> Ave.  
Suite A-8  
Portland, OR 97218  
(503) 326-2346

Dear Board of Directors:

Enclosed you will find a proposal to renew the grant Wildlife Services (WS) has received the past 3 years from the Oregon Hunter's Association (OHA). I am requesting \$10,000 from OHA and hope to get additional financial support from local OHA Chapters and other sportsmen groups as we have the past 3 years. These funds will be used to help support our aerial hunting program from November 2005 in to July 2006. This year, we continued to get significant financial support from private ranchers and we have added Safari Club International (SCI) funding. This year we will seek renewal of SCI funding and we have already gained financial support from the Mule Deer Foundation of eastern Oregon and western Idaho. I mention this because I want to give OHA credit for supplying the initial cost share funds that have generated the interest and willingness of ranchers other sportsmen to participate in supporting our aerial hunting activities. This new cooperatively funded program is proving very successful despite it being a radical departure from the traditional program fully funded with federal dollars.

This year we will continue the hourly rate at \$100/hour. Aerial hunting activities will continue to be coordinated with local ODFW Biologists, OHA representatives, other participating sportsmen groups and landowners/managers. It is our hope that we can continue to expand on the success we have had the past 3 years and use an increase in OHA, other sportsmen groups and private rancher/landowner money to benefit livestock, wildlife species and hunter/landowner relationships. OHA money will continue to be used on private and public land to protect livestock and incidentally benefit wildlife or we could specifically fly for game protection and enhancement as described in the grant application.

The application explains how predator management can in certain situations be very effective in enhancing game populations while being cost effective. Aerial hunting is the principal tool that WS uses to address predation management to protect game herds in cooperation with various state and federal agencies. It is a very selective and effective tool that has been documented to help wildlife agencies enhance game populations.

We will be available to present a project completion presentation at your September Board meeting or we can simply print a copy of a presentation for distribution to the OHA Board.



**APHIS** Safeguarding American Agriculture  
APHIS is an agency of USDA's Marketing and Regulatory Programs

An Equal Opportunity Provider and Employer

Within the enclosed project completion report you will find that we continue to rebuild our ability to conduct aerial hunting in eastern Oregon through the support of OHA. We have hired a new pilot and moved our northern plane from Pendleton to LaGrande. This has made this plane more effect and efficient. We will be heading in to the 05-06 aerial hunting season with two well seasoned crews ready to continue improving our track record.

I look forward to the continuation of our cooperative effort to manage coyote predation for the mutual benefit of wildlife and livestock.

Sincerely,

A handwritten signature in cursive script that reads "David E. Williams". The signature is written in dark ink and is positioned above the typed name.

David E. Williams  
State Director

ENCL:

(b)(6)

OHA

2008-2009 OHA grants and Balances

Hello OHA Board Members:

I want to address some questions about the carry over balances of OHA carry over grant money and associated hours of aerial hunting that I identified in the OHA project completion report attached to this year's grant proposal to continue OHA funding for aerial hunting of coyotes. I will distinguish what balances are associated with the \$15,000 grant Wildlife Services received for aerial hunting during the 10/01/08 thru 9/30/09 time frame from the balances of funding we received from local chapters of OHA

State OHA funds allocated/ balances	
Crook County	\$1,000/\$1,000
Gilliam/Wasco County	\$1,000/\$0
Grant County	\$1,250/\$0
Harney County	\$1,500/\$0
Klamath County	\$1,000/\$75
Lake County	\$2,250/\$0
Malheur County, North	\$1,000/\$0
Malheur County, South	\$1,000/\$0
Morrow County	\$1000/\$0
Umatilla County	\$1,000/\$0
Union County	\$1,000/\$595
Wallowa County	\$2,000/\$530

Local OHA Chapter funds allocated/ balances	
Grant County- Grant Co. Chapter OHA	\$1,000/\$450
Harney County- Harney Co. Chapter	\$10,000/\$2,250
& Rogue Chapter OHA	\$750/\$45

Lake County- Rogue Chapter OHA	\$750/\$105
Malheur County, North- Josephine Co. Chapter OHA	\$750/\$150
Malheur County, South- Josephine Co. Chapter OHA	\$750/\$0
Morrow County- Capitol Chapter OHA	\$1,000/\$0

Wallowa County- Portland Chapter OHA provides funding directly to the Wallowa County Predator District, funds do not come to Wildlife Services

Total State Grant funds allocated/balance  
\$15,000/\$2,200

Total local OHA Chapter funds allocated/balance  
\$15,000/\$3,000

Commentary about the balances of State OHA grant funds and local OHA Chapter funds:

In January we had to replace our primary gunner assigned to our plane based in LaGrande. At his time we had to use two (2) existing employees assigned Counties as county trappers as our gunners for our LaGrande airplane. This created occasional situations where we did not have a gunner available. These fill-in gunners were good experienced gunners, but because they had other duties they were not always available. We also had to shut the plane based in LaGrande down in February because its engine was timed out and had to be replaced and broken in. We dealt with bad weather most of the winter and spring. The weather really reduced the number of hours we could fly in April which ordinarily is a month we fly most of our hours. My veteran pilot who has been associated with our aerial hunting program as a gunner or pilot for 17 years says this is the worst winter/spring weather for flying he can recall.

So, this is my explanation or excuse why we left some balances of funding on the table this year. It should be noted that of the \$3,000 balance of local chapter funds, \$2,250 of those funds were Harney County Chapter OHA funds which they requested us to save for next year.

I hope this addresses the questions/concerns that some of the OHA Board members have about the use of OHA State Grant Funds. I believe in full disclosure to the OHA Board and membership when it comes to accounting for the use of OHA funds. Throughout the year I have shared our summary table of hours flown and coyotes taken with a broadcast of email updates throughout the OHA membership. I have personally spoken to Board members and several members of OHA throughout the season who have had questions about our aerial hunting activities. I look forward to visiting with the OHA Board during the August 22 meeting to address any questions or concerns associated with our grant proposal.

I am hopeful that we can continue our working relationship.

Your support is greatly appreciated.



07/19/2007 11:13 AM

To David.E.Williams@aphis.usda.gov  
cc  
bcc  
Subject Re: OHA grant application

It sounds like we have plenty of time but we will need to stay on top of it. The Hoodview Chapter board meets next Tuesday or Wednesday night in Milwaukie, I'll have to confirm the date but it's one or the other for sure. I think (b)(6) is out of town fishing for a week or two so you probably will not reach him. I know that the Harney county chapter supports the program heavily and (b)(6) or that area - in fact he's in their chapter. You can contact him (b)(6) [i.com](#)

(b)(6)

David.E.Williams@aphis.usda.gov wrote:

Hello (b)(6)

Yesterday I sent emails asking for assistance with the OHA grant application I am submitting to (b)(6) as you recommended. I also left a phone message with (b)(6) yesterday and with Fred this morning. I have not had any contacts as of yet from any of these gentlemen, but I am not faulting them I only started trying to contact them yesterday. Poor planning on my part does not constitute an emergency for anyone but myself.

I have left a phone message and sent an email (b)(6) to see if I could use him as a contingency plan if I am not able to get (b)(6) to have him sign off as a board member.

If I do not hear from the Portland Chapter by late tomorrow may I take you up on your offer to have the Hoodview Chapter sign off? I will drive to wherever and when ever to accommodate your schedule and availability.

Here is an electronic copy for your review. If you end up being a signatory party I will bring a hard copy to you.

Thanks for your help.  
Dave Williams  
State Director  
(503) 326-2346  
(b)(6)

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"I predict future happiness for Americans if they can prevent the government from wasting the labors of the people under the pretense of taking care of them." - Thomas Jefferson



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Summary Page**

1. Project Title: Incidental Benefits of Livestock Predation Management for Wildlife Species
  2. Applicant: USDA-APHIS-Wildlife Services  
 Address: 6135 NE 80<sup>th</sup>, Suite A-8  
 City/State/ZIP: Portland, OR 97218 Telephone: (503) 326-2346  
 E-mail address: david.e.williams@aphis.usda.gov  
 Signature: David Williams Title: St. Director Date: 07/18/08
  3. Project Location: Eastern Oregon on public and private land where hunters have access  
 County: \_\_\_\_\_ Township, Range, Section(s): \_\_\_\_\_
  4. Reviewed and recommended by OHA Grant County Chapter  
 Chapter recommends \_\_\_\_\_ Approval \_\_\_\_\_ Denial \_\_\_\_\_ Attach comments, if any.  
 Chapter President signatu \_\_\_\_\_ (b)(6) Date: 7-26-08  
 Regional state board sign \_\_\_\_\_ Date: 7-26-08  
 Regional state board director recommends X Approval \_\_\_\_\_ Denial \_\_\_\_\_ Attach comments, if any.
  5. Type of Project: Wildlife Management: X Habitat Improvement: \_\_\_\_\_ Hunter Education: \_\_\_\_\_  
 Other: \_\_\_\_\_
  6. Proposed Start Date: October 2008
  7. Estimated Total Cost of Project: \$ 210,983
  8. OHA Funding requested: \$ 15,000
  9. OHA Volunteer Hours proposed: \_\_\_\_\_
  10. Briefly explain the purpose of the project: Conduct aerial hunting of coyotes to protect livestock in areas where ODFW has identified coyotes as the reason game management objectives have not been met, or conduct aerial hunting of coyotes for the incidental benefits to game species. ODFW can request USDA-APHIS-WS to help reduce predation on game populations. Special attention to Access and Habitat (A&H) areas can be coordinated within this project.
  11. Complete and attach proposed project detail pages, and include additional maps, photos etc. as needed.  
 Send the application to: Oregon Hunters Association  
Attn: Grant Committee  
P.O. Box 1706  
Madford, OR 97501
- Board Action: Denied \_\_\_\_\_ Approved \_\_\_\_\_ For the amount of \$ \_\_\_\_\_  
 Conditions: \_\_\_\_\_
- Board Chair signature: \_\_\_\_\_ Date: \_\_\_\_\_ Assigned to regional board member \_\_\_\_\_ for coordination.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Summary Page**

1. Project Title: Incidental Benefits of Livestock Predation Management for Wildlife Species
  2. Applicant: USDA-APHIS-Wildlife Services  
 Address: 6135 NE 80<sup>th</sup>, Suite A-8  
 City/State/ZIP: Portland, OR 97218 Telephone: (503) 326 - 2346  
 E-mail address: david.e.williams@aphis.usda.gov  
 Signature: David Williams Title: St. Director Date: 07/18/08
  3. Project Location: Eastern Oregon on public and private land where hunters have access  
 County: \_\_\_\_\_ Township, Range, Section(s): \_\_\_\_\_
  4. Reviewed and recommended by OHA Grant County Chapter.  
 Chapter recommends \_\_\_\_\_ Approval \_\_\_\_\_ Denial Attach comments, if any.  
 Chapter President signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Regional state board signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Regional state board director recommends \_\_\_\_\_ Approval \_\_\_\_\_ Denial Attach comments, if any.
  5. Type of Project: Wildlife Management: X Habitat Improvement: \_\_\_\_\_ Hunter Education: \_\_\_\_\_  
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  6. Proposed Start Date: October 2008
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  8. OHA Funding requested: \$ 15,000
  9. OHA Volunteer Hours proposed: \_\_\_\_\_
  10. Briefly explain the purpose of the project: Conduct aerial hunting of coyotes to protect livestock in areas where ODFW has identified coyotes as the reason game management objectives have not been met, or conduct aerial hunting of coyotes for the incidental benefits to game species. ODFW can request USDA-APHIS-WS to help reduce predation on game populations. Special attention to Access and Habitat (A&H) areas can be coordinated within this project.
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- Board Action: Denied \_\_\_\_\_ Approved \_\_\_\_\_ For the amount of \$ \_\_\_\_\_  
 Conditions: \_\_\_\_\_
- Board Chair signature: \_\_\_\_\_ Date: \_\_\_\_\_ Assigned to regional board member \_\_\_\_\_ for coordination.



OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail

**Project Title:** The Incidental Benefits of Livestock Predation Management for Wildlife Species

1. **Background:** (Describe the wildlife management and or habitat challenge this project will address.)

Locally in Eastern Oregon, ODFW Biologists and sportsmen are concerned over the decline of deer and antelope. Where predation is suspected to be a contributing factor, predation management can be a beneficial wildlife management tool when selectively and strategically applied. Aerial hunting of coyotes can be a very selective coyote removal tool that USDA-APHIS-Wildlife Services can use to address predation.

Predation is a naturally occurring phenomenon. There is abundant evidence that predator and prey numbers fluctuate in healthy ecosystems and that the number of either is unlikely to become so low or so high as to warrant concern (e.g., Errington 1967). However, there are also many instances in which ecosystem health has been negatively affected by weather, fire, human disturbance, removal of top predators, introductions of exotic flora or fauna, etc. In these circumstances, predators may have significant negative impacts on prey (Hecht and Nickerson 1999) and populations of the latter may be driven significantly low to draw attention of managers, and, ultimately, the expenditure of public and private funds. One tool that can be implemented to benefit threatened prey species and to improve the recruitment of younger individuals into the population is predation management.

**Primary and secondary effects of predation-**

In addition to the primary negative effects of predation (i.e., how many of the affected prey species are directly killed by predators) there is a growing body of evidence that points to significant secondary effects of predation (Wehausen 1996, Ripple and Larsen 2000, Ripple et al. 2001, Barber et al. 2004, Preisser et al. 2005). Secondary effects in this context are negative effects to prey populations because of species "displacement" or antipredator behavior in prey (i.e., predators cause adaptive shifts in prey through shifts in behavior or occupied habitats) caused by predators (Morse 1980, Edwards 1983, Risenhoover and Bailey 1985, Lima et al. 1985, Ferguson et al. 1988, Hoban 1990, Lima and Dill 1990, Schmitz et al. 1997, Kie 1999) or the risk from predators (Creel et al. 2005). Secondary predation can be thought of as a trade-off by prey to reduce predation risks, but possibly at the expense of utilizing more favorable foraging or cover habitat, shifting daily activities, reduced reproductive success or other life history requirements (Burk 1982, Lima and Dill 1990, Hecht and Nickerson 1999, Ballard et al. 2001, Preisser et al. 2005). A secondary effect of predation could be the restriction of range utilization by prey species to areas adjacent to escape terrain/cover (Bergerud et al. 1983, Bergerud and Page 1987, Wehausen 1996, Bleich et al. 1997, Bleich et al. 1997, Kunkel and Pletscher 2000, Creel and Winnie 2005, Creel et al. 2005), interspecific competition with other prey species (Gill et al. 2001) and distribution of prey over their range (Messier and Barrette 1985, Molvar and Bowyer 1994). The behavioral response to predation or predation risk may result in reduced nutrient intake and lower offspring survival in prey species which can lead to a population decline or an animal in poor condition which may choose a foraging strategy more risky than an animal that is well fed (Skogland 1991a, Bleich et al. 1997).

In most cases, the assessment of predation impacts is limited to primary impacts. When the potential for secondary predation impacts is considered, it is difficult to assess whether predation or habitat are limiting, since one influences the other.

Habitat can be limiting and habitat management is necessary. Habitat management is a process and not a goal for management agencies. Once habitat is manipulated it progresses towards a climax vegetative community. Wildlife biologists and landowners must commit to habitat management on a continual basis to meet the diverse needs of multiple wildlife species and humans.

Because habitat management is necessary, because predators can affect habitat selection and use and because predation management can benefit habitat projects, it is inappropriate to look at issues as a "habitat v. predators."

Predation management can play a role in assisting species within the confines of existing habitat and habitat management provides habitat for the future.

**Management to improve fawn survival-** Both mule deer (*Odocoileus hemionus*) and pronghorn (*Antilocapra americana*) fawn survival can be increased by management activities that decrease predation by coyotes (e.g., Haily 1979, Knowlton 1976). For the latter, predation of unprotected fawns can approach 90%, although factors such as alternative prey, age structure of the coyote population and synchrony of fawning all play a factor (Dunbar et al. 1999, Byers 1997).

When predation management programs are implemented, pronghorn fawn survival and the recruitment of young individuals into the adult population can increase dramatically. Smith et al. (1986) noted that predation management could result in 100% annual increases in population size. In general, management activities that remove coyotes after breeding territories are established but prior to fawning can double fawning success.

Similarly, mule deer fawn survival can be increased when coyote populations are seasonally suppressed in fawning habitat. In Utah, coyote predation management was applied to deer hunt units where populations were depressed (<50% of herd objectives as specified by the Utah Division of Wildlife Resources), fawn recruitment was low (<50 fawns:100 does) and the population trend was stable to declining (Utah Division of Wildlife Resources 1996). In one such unit, fawn survival increased from 30.75 fawns:100 does to 51:100. In a third, fawn survival increased from 50:100 to 64:100 as a result of coyote management efforts.

**Management to protect endangered species-** Bighorn sheep (*Ovis Canadensis*) are affected by lions throughout their range. In California, lion predation has resulted in the emergency listing of this species, to allow for lion management. Restoration of bighorn sheep in Utah has been limited due by lion predation, and removal of lions is believed to be instrumental to the success of restored populations (Utah Division of Wildlife Resources 1996).

Black-footed ferret (*Mustella nigripes*) populations are severely impacted by coyote predations, especially following restoration efforts (Utah Division of Wildlife Resources 1995). In studies of restoration success in South Dakota, 30 day survival rates averaged 31% in the absence of predation management, but 67.5% with predation management in place. Based upon an introduction of 50 ferrets, the difference in survival with and without predation management and using an average individual value of \$29,132, 18 ferrets would be saved with predation management producing \$524,376 in financial benefit. Perhaps more significant, since nearly all of the ferret survival occurred in the presence of predation management, the success of the entire restoration effort arguably could be said to hinge on the application of this one management tool.

**Management to protect upland birds and nesting waterfowl-** Upland game bird populations may be affected by predation, including the direct predation of chicks and adults as well as nest predation. Again, while predation may be natural phenomena, several species have been shown to be negatively impacted. In one population of sage grouse in Utah, annual adult mortality due to predation (primarily non-native red fox) was 82% without fox control in place while only 33% with fox control (Bunnell and Flinders 1999). Grouse nests are also predated. Ten of 19 (53%) sage grouse nests on Parker Mountain in Utah were destroyed by ravens (T. A. Messmer, pers. Commun.). In an artificial nest predation study in Idaho sage grouse habitat, 28% of nests placed in a predator control area were destroyed while 98% were destroyed in an adjacent no control area (Collinge and Maycock, 2000).

In two study sites in southern Utah, pheasant (*Phasianus colchicus*) populations doubled in treatment (predator control) areas relative to nearby no-treatment areas. In northern Utah, a similar study increased pheasant on areas with good pheasant habitat, but an overall increase was not noted (Frey et al. 2000). The conditional nature of the northern Utah result was attributed to the small size of the study plots involved, and the amount of pheasant habitat available for treatment.

Production by nesting waterfowl also can be improved by predation management. Adult survival during the nesting season also can be improved. Red fox alone are reported to kill 18% of nesting hen mallards in North Dakota annually, and kill an estimated 900,000 adult ducks (predominately hens) each year in the prairie pothole region. In a predator removal demonstration project, nest success in the treatment (predator removal) site was 71% while nest success on the no treatment site was 14%. The difference was compounded by the treatment site containing 166% more nests than the no treatment site, which could indicate that predation management could lead to increased productivity due to nest site selection by duck pairs as well as decreasing actual predation. Numerically, 178 nests successfully hatched on the treatment site, compared to only 21 nests on the no treatment site, an 847% increase in total nest productivity. Cost for treatment was \$2.00/acre, assuming the benefits extended only to the treatment site itself. If the benefit of predator removal extended outside of the treatment area 2 miles, costs dropped to \$0.48/acre (Jones 1994).

### **Case Studies of Big Game Protection-**

The present discussion focuses on the cost of conventional predation management and the effect applications of these methods have on wildlife numbers. Much of the best available data has been generated in

Utah; a series of case studies is presented below. Each of the areas discussed is a big game management unit that was selected by the Utah Division of Wildlife Resources for predation management activity. Selection highlights an important caveat which, although previously stated, is worth reiteration here. Specifically, the timing of predation management, habitat characteristics, game abundance relative to carrying capacity, and a variety of other factors can and do influence game populations. Like any wildlife management tool, managers must select methods carefully so that the critical features limiting recruitment are addressed.

**Henry Mountains mule deer.** Using aerial hunting from fixed and rotary wing aircraft and coyote removals by ground personnel, the cost of fawn protection from coyotes was \$6.96 per sq. mile treated in 1997 and \$8.69 per sq. mile in 1998. Overall, the cumulative cost for two years of fawn protection in this unit was \$15,841. Recruitment was improved substantially; herd size increased by 600 animals, reversing a 5 year decline (Bodenchuk 1999). The civil value assigned to mule deer is \$300. Accordingly, the net benefit for two years work was \$180,000, permitting calculation of a benefit:cost ratio of 11.4:1.

**Bookcliffs mule deer.** Intensive hunting of coyotes on fawning grounds cost \$11,000 in 1997, or \$66.87 per sq. mile. Recruitment improved substantially, and herd size increased by 667 animals (Bodenchuk 1999). Accordingly, the net benefit was \$200,100. The benefit:cost ratio of this project was 18:1.

**Pahvant mule deer.** Using aerial hunting and coyote removals by ground personnel, three years of deer fawn protection cost \$27,480 and resulted in an estimated increase of 2,073 fawns worth \$621,900 (Bodenchuk 1999). The benefit:cost ratio of this project was 22.6:1.

**Pronghorn.** Pronghorn protection has been extensively evaluated, much more so than mule deer, and is nearly always considered to be cost beneficial. For example, Smith et al. (1986) evaluated the benefit:cost of predation management using the cost of pronghorn permits plus estimated hunter expenditures. A management schedule that involved the removal of territorial coyotes every other year yielded the greatest return, a benefit:cost ratio of 1.92:1. Depending on herd size, Smith et al. (1986) argued that benefits in the range of 2:1 and 3:1 could be expected.

Overall, then, the range of benefit:cost ratios for predation management to protect wildlife ranged between 2:1 and 22.6:1. In FY 1998, Wildlife Services programs in the Western Region spent \$2,936,068 (federal and cooperative combined) on this activity. Accordingly, the benefits of Wildlife Services predation management to protect wildlife ranged between \$5,872,136 to \$66,355,137.

#### **Incidental Benefits of Predation Management for Livestock Protection to Wildlife**

The examples above lead to the conclusion that predation management can be a beneficial wildlife management tool when selectively and strategically applied. Since wildlife in crisis often co-exist with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in the treatment areas. The degree of incidental benefit may depend on the timing and intensity of management efforts. Several case studies follow to illustrate this point.

In livestock predation, 80% of domestic lamb (*Ovis aries*) losses to coyotes are attributed to breeding (alpha) pairs (which represent <50% of coyote populations) (Connolly et al. 1976, Gese and Grothe 1995, Bromley and Gese 2001). In wildlife predation, the authors suspect a similar relationship may exist. Mule deer and pronghorn antelope fawns and all ground nesting birds are vulnerable (and apparently impacted) during pup rearing periods for coyotes as a result of the increased food requirements of raising young (Till 1983, Till and Knowlton 1992).

In Utah, five deer management units received intensive coyote control for domestic sheep grazing on summer range (fawning range for deer). Despite a severe winter loss in 1992-93, these units averaged 74.4% of the Utah Division of Wildlife Resource's deer herd objective in 1995, an average increase in herd size of 6.4% over 1994 numbers. Three other deer management units received intensive coyote control for winter sheep grazing (winter range for the deer herd) and in 1995 averaged 50.3% of objective and were increased by 2.3% over 1994 numbers. Finally, nine deer management units received no predation management efforts by WS during the period. These units averaged 39.7% of objective and were decreased at an average of 1.1% from 1994 numbers.

In Texas, intensive coyote control for sheep and goat protection may be one cause of high deer survival and densities in the Edward's Plateau. Whether these densities are biologically good or bad depends on the degree to which deer management is concurrently applied. Unchecked deer populations overuse available forage and in turn may argue against predation management in certain areas. This final point highlights the fact that predation management can have negative effects on other species of wildlife (Kie et al. 1979).

#### ✓2. **Project Objective:**

- ✓ a. What is the objective of the proposed project?  
Increase hunter opportunity through predator management and greater access to private lands.

- ✓ b. How will the project benefit wildlife management, habitat improvement, and/or hunters' rights?

There will be a reduction in predation on game species in areas open to hunters. The cost sharing of this project will foster better relations between ranchers and sportsmen. More game and more hunter access will result in increased hunter opportunities in Eastern Oregon.

- ✓ **Project Location:** (Attach a map and provide narrative description of the project location and how to get there from a major highway.)

Project will take place on public and private land in Eastern Oregon. Wildlife Services can conduct aerial hunting activities wherever livestock are legally present or where ODFW requests our assistance in addressing predation on game animals. Wildlife Services will secure written permission to access lands and will conduct project activities as, mutually agreed upon with OHA.

- ✓ **Project procedure:** (Specifically describe how the project will be conducted – use separate pages for additional information, drawings or pictures.)

Areas where game species could benefit by reducing coyote predation on young game animals will be identified with input from ODFW District Biologists, federal land and wildlife managers, OHA and USDA-APHIS-WS biologists. OHA funds will be used to support aerial hunting of coyotes and locating coyote dens.

- ✓ **Permits, Inter-Agency Coordination:** (Have all necessary permits been secured or applied for? Have all inter-agency coordination and approvals been initiated or secured?) USDA-APHIS-WS maintains close coordination with ODFW, ODA, USFS, BLM, USFWS, Indian Tribes and county governments through cooperative agreements and memorandum of understanding and annual coordination meetings.

NEPA requirements have been met to allow WS to work on private and public lands.

USDA-APHIS-WS has authority to shoot coyotes and feral pigs from aircraft.



**PROJECT PROPOSAL AND GRANT APPLICATION**  
**Project Detail (continued)**

✓ **Project Schedule:**

- ✓ a. Start Date: October 2008 Completion Date: September 2009
- ✓ b. List major project activities and time schedule for each.

Activity	Time (Month/Year)
-Aerial hunting of coyotes removing coyotes and locating dens for removal.	-October 2008 through early July 2009 and a small numbers of hours in September -When deer move to wintering ground and coyote breeding season through fawning and kidding season.

✓ **Participation:** (What organizations will participate in the project? List and describe the participation, and attach letters of commitment or verification of other grant awards to be involved in this project. You do not need to include individuals.)

Participant	Activity
ODFW	-Identify areas where predator control would benefit wildlife.
OHA State & local Chapters	-Assist in local coordination of aerial hunting.
BLM, USFS, USFWS	-Identify areas on federal lands where project can be carried out.
USDA-APHIS-WS	-Conduct and report on aerial hunting operations and results.
Counties	-Provide funding for ground crews and aerial hunting in areas adjacent to areas where OHA funds are being used.
Private ranchers/landowners	-As many as 115-130 individuals will contribute funding to support aerial hunting in counties where OHA funding will be used.
Safari Club International	-Funding aerial hunting in the western portion of Beaty's Butte Unit (western Harney Co. & eastern Lake Co.).
Mule Deer Foundation	-Funding from the Eastern OR/Western ID Chapter of MDF to support aerial hunting of coyotes in northern Malheur Co.

✓ **Funding:**

- ✓ a. List other sources and amount of project funds (include in budget on page 5).
  - Federal funds (\$129,990) to cover salaries and benefits of pilots and gunners, when they are not flying, all of the ferry time expenses, maintenance expenses not covered by other sources of funds, training expenses, hangar expenses and overhead expenses. This allows all non federal funds to be used to support aerial hunting hours flown.
  - Local OHA Chapter funds (\$19,000)
  - Private ranchers/landowners (\$33,660)
  - Safari Club International (\$3,750)
  - Mule Deer Foundation (\$???)
  - County Governments (\$13,500)
  - ODFW (\$ )

- ✓b. Have any conditions been placed on funds listed in "a." above, which may affect the completion of the project? If so, identify and explain.  
No, what ever OHA provides will be used as mutually agreed upon by OHA and WS.

✓ **Project Maintenance and Monitoring:**

- ✓ a. Who will maintain the project and fund long-term maintenance and/or operation, if needed?  
USDA-APHIS-WS, contingent on federal, state and county funding.
- ✓b. What element(s) of the project will be monitored, how often, for how long?
  - Aerial hunting activities will be monitored annually for NEPA compliance.
  - Annual reports will be provided to OHA and project updates will be provided as desired by OHA.

✓ **How will OHA be publicly recognized for its contribution to this project?**

When Wildlife Services attends livestock association meetings throughout the year we recognize OHA's support of the aerial hunting program we deliver. Livestock associations recognize the mutual benefits to livestock producers and wildlife when coyote control is jointly funded by ranchers, OHA and other sportsmen's groups. We have also recognized OHA's contribution to the Wildlife Services aerial hunting program at Safari Club International (SCI) meetings, Foundation of North American Wild Sheep (FNAWS) and other sportsmen groups meetings and Association of Oregon County meetings.

The cooperative relationship between OHA and private ranchers in supporting predator management is recognized by the Oregon Legislature's Ways and Means committee. Testimony describing this project during appropriations hearings has been well received by the legislators on the committee.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail (continued)**

✓ **Project Cost Estimate:**

✓ <u>Category</u>	<u>OHA Funds</u>	<u>Other Funds</u>	<u>Total Cost</u>	<u>Remarks</u>
Administration				
-Training		\$5,082	\$5,082	
-Accounting/Admin		\$3,000	\$3,000	
Construction				
Materials (Itemize)				
Supplies				
-Shotguns		\$2,138	\$2,138	
-Misc. Supplies		\$1,000	\$1,000	
-Cell phones/radio equip		\$7,000	\$7,000	
Contract Services				
-Ammunition	\$5,000	\$16,107	\$21,107	
-Fuel & Oil	\$5,000	\$19,385	\$24,385	
-Regular Maintenance *		\$20,082	\$20,082	
-Travel *				
-Pilot & gunner * \$5,000	\$5,000	\$107,441	\$112,441	
-Ground Crew		\$13,750	\$13,750	
-Hangar Fees		\$1,000	\$1,000	
*NOTE: State OHA funds will be used to cover portions of the expenses for ammunition, fuel & oil, regular maintenance, aerial hunting crew salaries & benefits, and per diem for flight crews. All ferry time and salaries & benefits for aerial hunting crews when not conducting aerial hunting missions will be covered by federal funds.				
Equipment (Itemize)				
-New engine			\$0	N/A this year
✓ <b>Total Cost</b>	<b>\$15,000</b>	<b>\$195,985</b>	<b>\$210,985</b>	



OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report

✓ Project Name: Incidental Benefits of Livestock Predation Management for Wildlife Species

Location: Eastern Oregon on public and private lands open to hunting

Grantee: USDA-APHIS-Wildlife Services

Address: 6135 NE 80<sup>th</sup>, Suite A-8  
Portland, OR 97218

Phone: (503) 326-2346

✓ 1. Briefly describe the project objective(s):

Generate cost share funding between OHA, private ranchers and the USDA-APHIS-WS program to support aerial hunting of coyotes in eastern Oregon. OHA funds will help maintain the number of aerial hunting hours we conduct and the number of coyotes we can take. Since wildlife in crisis often co-exists with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in treatment areas.

✓ 2. Describe the project accomplishments (indicate any changes from proposed to actual accomplishments):

In general our accomplishments this year's aerial hunting season (2007-2008), through June of 2008, approximate what we were able to do in the 2006-2007 aerial hunting season. We flew 54 hours less and took 397 fewer coyotes. While our hours and coyotes taken were down some due to a couple variables, in a few counties, our hours and coyotes taken were up significantly. We continue to maintain a veteran crew in our airplane based in Burns, OR. This past year our veteran gunner with our LaGrande, OR based aircraft left our program abruptly in January. This put us in a little bit of a bind, but we called in some veteran gunners from within our ranks and have proceeded to train a new primary gunner for the future. We have also maintained our two Christian Husky aircraft that have superior ferry speed and larger fuel capacity than super cubs we have used in the past. The Husky aircraft have given us better range and ability to respond more quickly to predation events. Our hours of hunting flown through June of this year was 505.9, which is slightly less than what we flew last year. Last year during the same period of time we flew 559.4 hours. Our trend for hours flown over the past 5 years is: 399.3 flown in 2004, 432.5 in 2005, 534.3 in 2006, 559.6 in 2007 and 505.9 in 2008. Because we have invested in a new aircraft engine and a new full time gunner we expect the number of hours for this coming year to exceed the 559.7 flown in 2007. We are committed to increasing the number of hours flown along with our effectiveness. Our coyote take for 2008 through June was 3,256. Recent trends in coyote take: FY 2007 with 3,653, FY 2006 with 3,058 and in FY 2003 1,511 taken. The Wildlife Services program also located many dens from the air. The destruction of coyote dens is very effective in curtailing predation. Each den removed could mean the removal of 2 adults and up to 7 pups.

Due to the grants from OHA at the State and local chapter levels and the additional funding from the other sources noted in this grant proposal we are now far exceeding the level of our FY 2001 coyote take in eastern Oregon with 3,256 taken by aircraft in 2007-2008. FY 2001 was the last year both planes were running full steam with no funding problems. State cuts hit us hard in FY 2002 and greatly reduced our ability to fund our aerial program. The number of coyotes taken this past year (3,256) via the aircraft is the 2<sup>nd</sup> highest over the past 11 years. If the OHA grants continue, I am confident the other sources of funds would also continue, thus enabling us to meet or exceed our coyote take in FY 2006-2007 (3,653).

There is a two page summary chart for 2007-2008 showing hours flown and coyotes taken, broken down by county included with this grant package.

Wildlife Services covered the expenses of the 239.7 hours of ferry time/training and maintenance flight time associated with this project.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
✓ Grant Project Completion Report (continued)**

- ✓ 3. Summarize how OHA Grant and Grantee funds were spent on this project (indicate any changes from proposed to actual spending activities):

<u>Expenditure Category</u> (i.e. materials, labor, equipment, etc.)	<u>OHA Grant Funds</u>	<u>Other Grantor Funds</u>	<u>Grantee Funds</u>	<u>Total Cost</u>
	*\$30,850 (\$31,000 avail)	**\$44,960 (\$50,910 avail)	\$177,607	\$253,417

\*Note: We collected \$2,000 more from local chapters of OHA than originally projected. There was actually a total of \$31,000 in OHA funds available directly through the OHA State Grant of \$12,000 and \$19,000 from local OHA Chapters. We used \$30,850 of the \$31,000 in total OHA funds (local chapters and State OHA sources) that were available this past year. The Redmond chapter of OHA provided \$1,000 late in the season and we were only able to fly one hour where they wanted us to in Lake County thus the balance of their money remains in a trust fund for use this coming year. All other local and State OHA funds were expended. Also, it should be noted that the Portland Chapter of OHA provides funding directly to the Wallowa County Predator District which helps pay for some of the aerial hunting we conduct in that county. Harney County OHA has continued to maintain a \$10,000 balance in a trust fund with plans to replenish it annually over the next few years.

\*\*Note: This year we used \$44,960 of the total \$50,910 in other grantor funding that was available. These funds included \$3,750 in Safari Club International funds, \$13,500 in county government funds and \$33,660 of rancher money.

OHA funds were used with other Grantor funds as described in the 2007 Grant proposal in counties identified by OHA with input from ODFW. Grantee funds (USDA-APHIS-Wildlife Services) were used to cover ferry time, flight time associated with training and maintenance, equipment upgrades, administrative costs and salary & benefits of pilots and gunners when they were not conducting aerial hunting missions associated with this project.

- ✓ 4. Describe the educational opportunities provided through this project (if applicable):  
This project is an opportunity to educate the legislative and political figures on the importance of sportsmen and ranchers in providing habitat and funding for wildlife management. The project is fostering good relations between the hunting and ranching community resulting in more hunting opportunities.
- ✓ 5. Describe how this project has benefited wildlife and/or wildlife habitat:

A good example of the benefits of aerial hunting to antelope herds is Beatys Butte Unit (West), ODFW Unit #70 and the Warner Unit, ODFW Unit #74 where we have focused OHA and Safari Club International funding to conduct aerial hunting. Based on the ODFW 2006 annual report of Antelope Trend Inventory from the Lake District the number of kids per 100 does in both units was 70, far surpassing other units. We have flown these areas with OHA funds and Safari Club International funds the previous two years. The report also indicated that the Beaty Butte (W) and Warner units have a significantly higher count of antelope per mile with counts of 8.4 and 9.8 antelope per mile respectively. These counts are significantly higher than units we do not aerial hunt. At this time, 2007 ODFW data regarding their July 2008 antelope flights are not available. When I get this data I will share it with the OHA Board.

Wildlife Services has evaluated the benefit:cost ratio of coyote control to protect game species and has found predation management activities to protect wildlife show benefit:cost ratios ranging from 2:1 to 22:1. Predation management at times is key to game populations reaching management objectives developed by wildlife managers.

Wildlife Services will continue to coordinate with ODFW Biologists to determine where benefits to both game and livestock may be realized when aerial hunting of coyotes is conducted.

- ✓ 6. Describe how the project has benefited you as a landowner (...or conservation group, association, agency, cooperator, educational institution, etc.)  
Wildlife Services can use OHA funds and rancher funds to support our very important aerial hunting tool in Eastern Oregon. We can effectively address livestock killing with our aircraft which frees up time of our field people to address other wildlife conflicts.
- ✓ 7. If a research paper or report was a product of this project, please attach a copy.
- ✓ 8. If photographs were taken of the completed project, please attach copies.
- ✓ 10. Additional comments:  
We are available to make a presentation at your <sup>August</sup> September Board meeting or local chapter meetings.

✓ Grantee Signature: David E. Williams Please return completion report to:  
President  
Oregon Hunters Association  
P.O. Box 1706  
Medford, OR 97501

Grantee name and title: State Director

Date: 7/18/08

# FY08 OHA Aerial Hunting

Hours

County	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total Hours
Crook				4.4	2.8	2							9.2
Deschutes													0
Jefferson													0
Gilliam	2.4				3.1			7.4					12.9
Grant				3.2	5.1	7.4							15.7
Harney		1.8	18.8	6.9	26.4	35.2	9	13.1	6.8				118
Klamath				3.7		3.3							7
Lake		1	8	4.8	7	19.2	15.4	11.2	25.7				92.3
North Malheur		3.6		10.4	5.9	16.3	17.8	5.3	3.1				62.4
South Malheur		6.9	3.7	7	10.4	6	12.6						46.6
Sherman													0
Morrow		3	6.1	4.3	5.7	6	3.6	8.2					36.9
Umatilla		0.4	8.5	20.5	7.1	14.1	9.1	8.8					68.5
Union				0.4									0.4
Wallowa					13.4	2.3	4	4.4	4				28.1
Wasco						4	3.4						7.4
Wheeler													0
<b>Total</b>	<b>2.4</b>	<b>16.7</b>	<b>45.1</b>	<b>65.6</b>	<b>86.9</b>	<b>115.8</b>	<b>74.9</b>	<b>58.4</b>	<b>39.6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>505.4</b>

**Coyotes**

County	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total Coyotes
Crook				34	14	14							62
Deschutes													0
Jefferson													0
Gilliam	5				14			14					33
Grant				24	24	40							88
Harney		27	122	77	257	257	51	67	15				873
Klamath				41		14							55
Lake			120	85	94	215	80	61	100				755
North Malheur		16		75	49	69	73	15	8				305
South Malheur		28	33	88	63	55	90						357
Sherman													0
Morrow		15	49	29	35	18	13	26					185
Umatilla		8	63	136	49	33	17	11					317
Union				2									2
Wallowa					145	15	11	8	10				189
Wasco						19	16						35
Wheeler													0
<b>Total</b>	<b>5</b>	<b>94</b>	<b>387</b>	<b>591</b>	<b>744</b>	<b>749</b>	<b>351</b>	<b>202</b>	<b>133</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3256</b>



(b)(6)

07/16/2007 11:08 AM

To David.E.Williams@aphis.usda.gov

cc

bcc

Subject Re: OHA Grant Time Again!

History:

 This message has been replied to.

The Portland Chapter has a long record of supporting your applications so I would contact the chapter (b)(6) If that doesn't produce results immediately, our chapter will sign off on it.

You will also need to have a Regional Director sign it and think (b)(6) did it last year. (b)(6) . Contact them and let me know if you do not have success - there are more Director to contact if necessary.

(b)(6)

(b)(6)

Good luck and I'll talk to you soon -

(b)(6)

David.E.Williams@aphis.usda.gov wrote:

(b)(6)

Don left me a message that he will be out till July 28. What do you suggest as the best way of going about getting the proper signatures in the appropriate manner and in the time frame we need to get the paperwork submitted? I will drive around gathering signatures if need be.

Thanks,  
Dave

--

"I predict future happiness for Americans if they can prevent the government from wasting the labors of the people under the pretense of taking care of them." - Thomas Jefferson



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Summary Page**

- ✓ 1. Project Title: Incidental Benefits of Livestock Predation Management for Wildlife Species
- ✓ 2. Applicant: USDA-APHIS-Wildlife Services  
 Address: 6135 NE 80<sup>th</sup>, Suite A-8  
 City/State/ZIP: Portland, OR 97218 Telephone: (503) 326-2346  
 E-mail address:  david.e.williams@usda.gov   
 Signature: \_\_\_\_\_ Title: St. Director Date: 07/19/07
- ✓ 3. Project Location: Eastern Oregon on public and private land  
 County: \_\_\_\_\_ Township, Range, Section(s): \_\_\_\_\_
- ✓ 4. Reviewed and recommended by OHA Portland Chapter.  
 Chapter recommends  Approval  Denial Attach comments, if any.  
 ✓ Chapter President signature \_\_\_\_\_ (b)(6) Date: 7-19-07  
 ✓ Regional state board signature: [Signature] Date: 7/19/07  
 Regional state board director recommends  Approval  Denial Attach comments, if any.
- ✓ 5. Type of Project: Wildlife Management:  Habitat Improvement: \_\_\_\_\_ Hunter Education: \_\_\_\_\_  
 Other: \_\_\_\_\_
- ✓ 6. Proposed Start Date: October 2007
- ✓ 7. Estimated Total Cost of Project: \$ 253,417
- ✓ 8. OHA Funding requested: \$ 15,000
- ✓ 9. OHA Volunteer Hours proposed: \_\_\_\_\_
- ✓ 10. Briefly explain the purpose of the project: Conduct aerial hunting of coyotes to protect livestock in areas where ODFW has identified coyotes as the reason game management objectives have not been met, or conduct aerial hunting of coyotes for the incidental benefits to game species. ODFW can request USDA-APHIS-WS to help reduce predation on game populations. Special attention to Access and Habitat (A&H) areas can be coordinated within this project.
- ✓ 11. Complete and attach proposed project detail pages, and include additional maps, photos etc. as needed.

Send the application to: Oregon Hunters Association  
 Attn: Grant Committee  
 P.O. Box 1706  
 Medford, OR 97501

*Insert*



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail**

**Project Title:** The Incidental Benefits of Livestock Predation Management for Wildlife Species

1. **Background:** (Describe the wildlife management and or habitat challenge this project will address.)

Locally in Eastern Oregon, ODFW Biologists and sportsmen are concerned over the decline of deer and antelope. Where predation is suspected to be a contributing factor, predation management can be a beneficial wildlife management tool when selectively and strategically applied. Aerial hunting of coyotes can be a very selective coyote removal tool that USDA-APHIS-Wildlife Services can use to address predation.

Predation is a naturally occurring phenomenon. There is abundant evidence that predator and prey numbers fluctuate in healthy ecosystems and that the number of either is unlikely to become so low or so high as to warrant concern (e.g., Errington 1967). However, there are also many instances in which ecosystem health has been negatively affected by weather, fire, human disturbance, removal of top predators, introductions of exotic flora or fauna, etc. In these circumstances, predators may have significant negative impacts on prey (Hecht and Nickerson 1999) and populations of the latter may be driven significantly low to draw attention of managers, and, ultimately, the expenditure of public and private funds. One tool that can be implemented to benefit threatened prey species and to improve the recruitment of younger individuals into the population is predation management.

**Management to improve fawn survival-** Both mule deer (*Odocoileus hemionus*) and pronghorn (*Antilocapra americana*) fawn survival can be increased by management activities that decrease predation by coyotes (e.g., Haily 1979, Knowlton 1976). For the latter, predation of unprotected fawns can approach 90%, although factors such as alternative prey, age structure of the coyote population and synchrony of fawning all play a factor (Dunbar et al. 1999, Byers 1997).

When predation management programs are implemented, pronghorn fawn survival and the recruitment of young individuals into the adult population can increase dramatically. Smith et al. (1986) noted that predation management could result in 100% annual increases in population size. In general, management activities that remove coyotes after breeding territories are established but prior to fawning can double fawning success.

Similarly, mule deer fawn survival can be increased when coyote populations are seasonally suppressed in fawning habitat. In Utah, coyote predation management was applied to deer hunt units where populations were depressed (<50% of herd objectives as specified by the Utah Division of Wildlife Resources), fawn recruitment was low (<50 fawns:100 does) and the population trend was stable to declining (Utah Division of Wildlife Resources 1996). In one such unit, fawn survival increased from 30.75 fawns:100 does to 51:100. In a third, fawn survival increased from 50:100 to 64:100 as a result of coyote management efforts.

**Management to protect endangered species-** Bighorn sheep (*Ovis Canadensis*) are affected by lions throughout their range. In California, lion predation has resulted in the emergency listing of this species, to allow for lion management. Restoration of bighorn sheep in Utah has been limited due by lion predation, and removal of lions is believed to be instrumental to the success of restored populations (Utah Division of Wildlife Resources 1996).

Black-footed ferret (*Mustella nigripes*) populations are severely impacted by coyote predations, especially following restoration efforts (Utah Division of Wildlife Resources 1995). In studies of restoration success in South Dakota, 30 day survival rates averaged 31% in the absence of predation management, but 67.5% with predation management in place. Based upon an introduction of 50 ferrets, the difference in survival with and without predation management and using an average individual value of \$29,132, 18 ferrets would be saved with predation management producing \$524,376 in financial benefit. Perhaps more significant, since nearly all of the ferret survival occurred in the presence of predation management, the success of the entire restoration effort arguably could be said to hinge on the application of this one management tool.

**Management to protect upland birds and nesting waterfowl-** Upland game bird populations may be affected by predation, including the direct predation of chicks and adults as well as nest predation. Again, while predation may be natural phenomena, several species have been shown to be negatively impacted. In one population of sage grouse in Utah, annual adult mortality due to predation (primarily non-native red fox) was 82% without fox control in place while only 33% with fox control (Bunnell and Flinders 1999). Grouse nests are also predated. Ten of 19 (53%) sage grouse nests on Parker Mountain in Utah were destroyed by ravens (T. A. Messmer, pers. Commun.). In an artificial nest predation study in Idaho sage grouse habitat, 28% of nests placed in a predator control area were destroyed while 98% were destroyed in an adjacent no control area (Collinge and Maycock, 2000).

In two study sites in southern Utah, pheasant (*Phasianus colchicus*) populations doubled in treatment (predator control) areas relative to nearby no-treatment areas. In northern Utah, a similar study increased pheasant on areas with good pheasant habitat, but an overall increase was not noted (Frey et al. 2000). The conditional nature of the northern Utah result was attributed to the small size of the study plots involved, and the amount of pheasant habitat available for treatment.

Production by nesting waterfowl also can be improved by predation management. Adult survival during the nesting season also can be improved. Red fox alone are reported to kill 18% of nesting hen mallards in North Dakota annually, and kill an estimated 900,000 adult ducks (predominately hens) each year in the prairie pothole region. In a predator removal demonstration project, nest success in the treatment (predator removal) site was 71% while nest success on the no treatment site was 14%. The difference was compounded by the treatment site containing 166% more nests than the no treatment site, which could indicate that predation management could lead to increased productivity due to nest site selection by duck pairs as well as decreasing actual predation. Numerically, 178 nests successfully hatched on the treatment site, compared to only 21 nests on the no treatment site, an 847% increase in total nest productivity. Cost for treatment was \$2.00/acre, assuming the benefits extended only to the treatment site itself. If the benefit of predator removal extended outside of the treatment area 2 miles, costs dropped to \$0.48/acre (Jones 1994).

#### **Case Studies of Big Game Protection-**

The present discussion focuses on the cost of conventional predation management and the effect applications of these methods have on wildlife numbers. Much of the best available data has been generated in Utah; a series of case studies is presented below. Each of the areas discussed is a big game management unit that was selected by the Utah Division of Wildlife Resources for predation management activity. Selection highlights an important caveat which, although previously stated, is worth reiteration here. Specifically, the timing of predation management, habitat characteristics, game abundance relative to carrying capacity, and a variety of other factors can and do influence game populations. Like any wildlife management tool, managers must select methods carefully so that the critical features limiting recruitment are addressed.

**Henry Mountains mule deer.** Using aerial hunting from fixed and rotary wing aircraft and coyote removals by ground personnel, the cost of fawn protection from coyotes was \$6.96 per sq. mile treated in 1997 and \$8.69 per sq. mile in 1998. Overall, the cumulative cost for two years of fawn protection in this unit was \$15,841. Recruitment was improved substantially; herd size increased by 600 animals, reversing a 5 year decline (Bodenchuk 1999). The civil value assigned to mule deer is \$300. Accordingly, the net benefit for two years work was \$180,000, permitting calculation of a benefit:cost ratio of 11.4:1.

**Bookcliffs mule deer.** - Intensive hunting of coyotes on fawning grounds cost \$11,000 in 1997, or \$66.87 per sq. mile. Recruitment improved substantially, and herd size increased by 667 animals (Bodenchuk 1999). Accordingly, the net benefit was \$200,100. The benefit:cost ratio of this project was 18:1.

**Pahvant mule deer.**- Using aerial hunting and coyote removals by ground personnel, three years of deer fawn protection cost \$27,480 and resulted in an estimated increase of 2,073 fawns worth \$621,900 (Bodenchuk 1999). The benefit:cost ratio of this project was 22.6:1.

**Pronghorn.**- Pronghorn protection has been extensively evaluated, much more so than mule deer, and is nearly always considered to be cost beneficial. For example, Smith et al. (1986) evaluated the benefit:cost of predation management using the cost of pronghorn permits plus estimated hunter expenditures. A management schedule that involved the removal of territorial coyotes every other year yielded the greatest return, a benefit:cost ratio of 1.92:1. Depending on herd size, Smith et al. (1986) argued that benefits in the range of 2:1 and 3:1 could be expected.

Overall, then, the range of benefit:cost ratios for predation management to protect wildlife ranged between 2:1 and 22.6:1. In FY 1998, Wildlife Services programs in the Western Region spent \$2,936,068 (federal and cooperative combined) on this activity. Accordingly, the benefits of Wildlife Services predation management to protect wildlife ranged between \$5,872,136 to \$66,355,137.

## **Incidental Benefits of Predation Management for Livestock Protection to Wildlife**

The example above lead to the conclusion that predation management can be a beneficial wildlife management tool when selectively and strategically applied. Since wildlife in crisis often co-exist with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in the treatment areas. The degree of incidental benefit may depend on the timing and intensity of management efforts. Several case studies follow to illustrate this point.

In Utah, five deer management units received intensive coyote control for domestic sheep grazing on summer range (fawning range for deer). Despite a severe winter loss in 1992-93, these units averaged 74.4% of the Utah Division of Wildlife Resource's deer herd objective in 1995, an average increase in herd size of 6.4% over 1994 numbers. Three other deer management units received intensive coyote control for winter sheep grazing (winter range for the deer herd) and in 1995 averaged 50.3% of objective and were increased by 2.3% over 1994 numbers. Finally, nine deer management units received no predation management efforts by WS during the period. These units averaged 39.7% of objective and were decreased at an average of 1.1% from 1994 numbers.

In Texas, intensive coyote control for sheep and goat protection may be one cause of high deer survival and densities in the Edward's Plateau. Whether these densities are biologically good or bad depends on the degree to which deer management is concurrently applied. Unchecked deer populations overuse available forage and in turn may argue against predation management in certain areas. This final point highlights the fact that predation management can have negative effects on other species of wildlife (Kie et al. 1979).

### ✓ 2. **Project Objective:**

a. What is the objective of the proposed project?  
Increase hunter opportunity through predator management and greater access to private lands.

b. How will the project benefit wildlife management, habitat improvement, and/or hunters' rights?  
There will be a reduction in predation on game species in areas open to hunters. The cost sharing of this project will foster better relations between ranchers and sportsmen. More game and more hunter access will result in increased hunter opportunities in Eastern Oregon.

### ✓ **Project Location:** (Attach a map and provide narrative description of the project location and how to get there from a major highway.)

Project will take place on public and private land in Eastern Oregon. Wildlife Services can conduct aerial hunting activities wherever livestock are legally present or where ODFW requests our assistance in addressing predation on game animals. Wildlife Services will secure written permission to access lands and will conduct project activities as, mutually agreed upon with OHA.

### ✓ **Project procedure:** (Specifically describe how the project will be conducted -- use separate pages for additional information, drawings or pictures.)

Areas where game species could benefit by reducing coyote predation on young game animals will be identified with input from ODFW District Biologists, federal land and wildlife managers, OHA and USDA-APHIS-WS biologists. OHA funds will be used to support aerial hunting of coyotes and locating coyote dens.

### ✓ **Permits, Inter-Agency Coordination:** (Have all necessary permits been secured or applied for? Have all inter-agency coordination and approvals been initiated or secured?) USDA-APHIS-WS maintains close coordination with ODFW, ODA, USFS, BLM, USFWS, Indian Tribes and county governments through cooperative agreements and memorandum of understanding and annual coordination meetings. NEPA requirements have been met to allow WS to work on private and public lands. USDA-APHIS-WS has authority to shoot coyotes and feral pigs from aircraft.



**PROJECT PROPOSAL AND GRANT APPLICATION**  
**Project Detail (continued)**

✓ **Project Schedule:**

- a. Start Date: October 2007 Completion Date: September 2008
- b. List major project activities and time schedule for each.

Activity	Time (Month/Year)
-Aerial hunting of coyotes removing coyotes and locating dens for removal.	-October 2007 through early July 2008 -When deer move to wintering ground and coyote breeding season through fawning and kidding season.

✓ **Participation:** (What organizations will participate in the project? List and describe the participation, and attach letters of commitment or verification of other grant awards to be involved in this project. You do not need to include individuals.)

Participant	Activity
ODFW	-Identify areas where predator control would benefit wildlife.
OHA State & local Chapters	-Assist in local coordination of aerial hunting.
BLM, USFS, USFWS	-Identify areas on federal lands where project can be carried out.
USDA-APHIS-WS	-Conduct and report on aerial hunting operations and results.
Counties	-Provide funding for ground crews and aerial hunting in areas adjacent to areas where OHA funds are being used.
Private ranchers/landowners	-As many as 124 individuals will contribute funding to support aerial hunting in counties where OHA funding will be used.
Safari Club International	-Funding aerial hunting in the western portion of Beaty's Butte Unit (western Harney Co. & eastern Lake Co.).
Mule Deer Foundation	-Funding from the Eastern OR/Western ID Chapter of MDF to support aerial hunting of coyotes in northern Malheur Co.

✓ **Funding:**

- a. List other sources and amount of project funds (include in budget on page 5).
  - Federal funds (\$155,676) to cover salaries and benefits of pilots and gunners, when they are not flying, all of the ferry time expenses and overhead expenses. This allows all non federal funds to be used to support aerial hunting hours flown.
  - Local OHA Chapter funds (\$17,500)
  - Private ranchers/landowners (\$31,510)
  - Safari Club International (\$2,500)
  - Mule Deer Foundation (\$???)
  - County Governments (\$13,500)

- b. Have any conditions been placed on funds listed in "a." above, which may affect the completion of the project? If so, identify and explain.  
No, what ever OHA provides will be used as mutually agreed upon by OHA and WS.

✓ **Project Maintenance and Monitoring:**

- a. Who will maintain the project and fund long-term maintenance and/or operation, if needed?  
USDA-APHIS-WS, contingent on federal, state and county funding.
- b. What element(s) of the project will be monitored, how often, for how long?  
-Aerial hunting activities will be monitored annually for NEPA compliance.  
-Annual reports will be provided to OHA and project updates will be provided as desired by OHA.

✓ **How will OHA be publicly recognized for its contribution to this project?**

When Wildlife Services attends livestock association meetings throughout the year we recognize OHA's support of the aerial hunting program we deliver. Livestock associations recognize the mutual benefits to livestock producers and wildlife when coyote control is jointly funded by ranchers, OHA and other sportsmen's groups. We have also recognized OHA's contribution to the Wildlife Services aerial hunting program at Safari Club International (SCI) meetings, Foundation of North American Wild Sheep (FNAWS) and other sportsmen groups meetings and Association of Oregon County meetings.

The cooperative relationship between OHA and private ranchers in supporting predator management is recognized by the Oregon Legislature's Ways and Means committee. Testimony describing this project during appropriations hearings has been well received by the legislators on the committee.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail (continued)**

✓ **Project Cost Estimate:**

<u>Category</u>	<u>OHA Funds</u>	<u>Other Funds</u>	<u>Total Cost</u>	<u>Remarks</u>
Administration				
-Training		\$3,170	\$3,170	
-Accounting/Admin		\$3,000	\$3,000	
Construction				
Materials (Itemize)				
Supplies				
-Shotguns		\$2,138	\$2,138	
-Misc. Supplies		\$1,000	\$1,000	
-Cell phones/radio equip		\$7,000	\$7,000	
Contract Services				
-Ammunition	\$4,213	\$4,819	\$9,302	
-Fuel & Oil	\$9,849	\$18,715	\$28,564	
-Regular Maintenance *		\$17,731	\$17,731	
-Travel *				
-Ferry Time		\$12,663	\$12,663	**
-Pilot & gunner	\$938	\$125,471	\$126,409	
-ground crew *		\$13,440	\$13,440	
-Hangar Fees		\$1,000	\$1,000	

\*NOTE: OHA funds will be used to cover portions of the expenses for ammunition, fuel & oil, regular maintenance, aerial hunting crew salaries & benefits, and per diem for flight crews. All ferry time and salaries & benefits for aerial hunting crews when not conducting aerial hunting missions will be covered by federal funds.

\*\*NOTE: Salary & benefit cost of pilot & gunner while ferrying is \$12,663 and is not contained in the ~~\$113,754~~ identified in Pilot and gunner cost.

125,471

Equipment  
(Itemize)

-New engine		\$28,000	\$28,000	
-------------	--	----------	----------	--

✓ **Total Cost      \$15,000                      \$238,147                      \$253,417**



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report**

Project Name: Incidental Benefits of Livestock Predation Management for Wildlife Species

Location: Eastern Oregon on public and private lands open to hunting

Grantee: USDA-APHIS-Wildlife Services

Address: 6135 NE 80<sup>th</sup>, Suite A-8  
Portland, OR 97218

Phone: (503) 326-2346

1. Briefly describe the project objective(s):

Generate cost share funding between OHA, private ranchers and the USDA-APHIS-WS program to support aerial hunting of coyotes in eastern Oregon. OHA funds will help restore some of the aerial hunting hours that Wildlife Services has had to cut due to a reduction in funds from the Oregon Department of Agriculture. Since wildlife in crisis often co-exists with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in treatment areas.

2. Describe the project accomplishments (indicate any changes from proposed to actual accomplishments):

In general our accomplishments this past year exceeded what we were able to do in FY 2006. In a few of the counties our hours and coyotes taken were down some due to a couple variables but in many counties our hours and coyotes taken were up significantly. This was due to us maintaining veteran crews and our two Christian Husky aircraft that have superior ferry speed and larger fuel capacity than super cubs we have used in the past. The Husky aircraft have given us better range and ability to respond more quickly to predation events. Our hours of hunting flown continue to increase with 399.3 flown in 2004, 432.5 in 2005, 534.3 in 2006 and 559.6 in 2007. Because we have invested in a new aircraft and a full time gunner we expect the number of hours to continue to increase along with our effectiveness. Our coyote take increased in FY 2007 with 3,582 coyotes taken compared to 3,058 taken in FY 2006 and 1,511 taken in 2003. The Wildlife Services program also located 52 dens from the air. The destruction of coyote dens is very effective in curtailing predation. Each den removed could mean the removal of 2 adults and up to 7 pups.

Due to the grants from OHA at the State and local chapter levels and the additional funding from the other sources noted in this grant proposal we are now exceeding the level of our FY 2001 coyote take in eastern Oregon with ~~3,582 taken~~ taken by aircraft in 2006-2007. FY 2001 was the last year both planes were running full steam with no funding problems. State cuts hit us hard in FY 2002 and greatly reduced our ability to fund our aerial program. The number of coyotes taken this past year (~~3,582~~) via the aircraft is the highest over the past 11 years. If the OHA grants continue, I am confident the other sources of funds would also continue, thus enabling us to meet or exceed our coyote take in FY 2006-2007.

There is a two page summary chart for 2006-2007 showing hours flown and coyotes taken, broken down by county included with this grant package.

Wildlife Services covered the expenses of the 201.5 hours of ferry time/training and maintenance flight time associated with this project.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report (continued)**

3. Summarize how OHA Grant and Grantee funds were spent on this project (indicate any changes from proposed to actual spending activities):

<u>Expenditure Category</u> (i.e. materials, labor, equipment, etc.)	<u>OHA Grant Funds</u>	<u>Other Grantor Funds</u>	<u>Grantee Funds</u>	<u>Total Cost</u>
	\$27,500*	\$31,510	\$173,407	\$253,417**

\*Note: There was actually a total \$27,000 plus in OHA funds available directly through the OHA State Grant of \$10,000 and \$17,500 from local OHA Chapters. The Crook County chapter of OHA provided \$2,000, but because we did not fly as much as planned we have a balance of \$1,000 with the balance remaining in trust for use next year. Also, it should be noted that the Portland Chapter of OHA provides funding directly to the Wallowa County Predator District which helps pay for some of the aerial hunting we conduct in that county. Harney County OHA has continued to maintain a \$10,000 balance in a trust fund with plans to replenish it annually over the next few years.

\*\*Note: The \$31,510 in other Grantor funds used came from private ranchers/landowners and Safari Club International, and County governments. OHA funds were used with other Grantor funds as described in the 2006 Grant proposal in counties identified by OHA with input from ODFW. Grantee funds were used to cover ferry time, flight time associated with training and maintenance, equipment upgrades, administrative costs and salary & benefits of pilots and gunners when they were not conducting aerial hunting missions associated with this project.

4. Describe the educational opportunities provided through this project (if applicable):

This project is an opportunity to educate the legislative and political figures on the importance of sportsmen and ranchers in providing habitat and funding for wildlife management. The project is fostering good relations between the hunting and ranching community resulting in more hunting opportunities.

5. Describe how this project has benefited wildlife and/or wildlife habitat:

A good example of the benefits of aerial hunting to antelope herds is Beaty Butte Unit (West), ODFW Unit #70 and the Warner Unit, ODFW Unit #74 where we have focused OHA and Safari Club International funding to conduct aerial hunting. Based on the ODFW 2006 annual report of Antelope Trend Inventory from the Lake District the number of kids per 100 does in both units was 70, far surpassing other units. We have flown these areas with OHA funds and Safari Club International funds the previous two years. The report also indicated that the Beaty Butte (W) and Warner units have a significantly higher count of antelope per mile with counts of 8.4 and 9.8 antelope per mile respectively. These counts are significantly higher than units we do not aerial hunt.

Wildlife Services has evaluated the benefit:cost ratio of coyote control to protect game species and has found predation management activities to protect wildlife show benefit:cost ratios ranging from 2:1 to 22:1. Predation management at times is key to game populations reaching management objectives developed by wildlife managers.

Wildlife Services will continue to coordinate with ODFW Biologists to determine where benefits to both game and livestock may be realized when aerial hunting of coyotes is conducted.

- 6. Describe how the project has benefited you as a landowner (...or conservation group, association, agency, cooperater, educational institution, etc.)  
Wildlife Services can use OHA funds and rancher funds to support our very important aerial hunting tool in Eastern Oregon. We can effectively address livestock killing with our aircraft which frees up time of our field people to address other wildlife conflicts.
- 7. If a research paper or report was a product of this project, please attach a copy.
- 8. If photographs were taken of the completed project, please attach copies.
- 10. Additional comments:  
We are available to make a presentation at your September Board meeting or local chapter meetings.

Grantee Signature: \_\_\_\_\_

Grantee name and title: State Director

Date: 7/19/07

**Please return completion report to:**  
 President  
 Oregon Hunters Association  
 P.O. Box 1706  
 Medford, OR 97501



United States  
Department of  
Agriculture

July 23, 2007

Capitol Chapter, OHA

Marketing and  
Regulatory  
Programs

(b)(6)

Animal and  
Plant Health  
Inspection  
Service

Subject: Grant Proposal for Aerial Hunting in Eastern Oregon.

Dear Capitol Chapter OHA Board,

Wildlife  
Services

I want to thank the Capitol Chapter of OHA for your continued support of the Wildlife Services aerial hunting activities in Eastern Oregon. We deeply appreciate the contributions we receive at the State and local chapters of OHA. The cost sharing of aerial hunting between hunters and ranchers demonstrates the importance of each party to wildlife management. There are mutual benefits to game species and livestock along with the increased hunter opportunities that result from this cooperative relationship.

Oregon State Office

6135 NE 80<sup>th</sup> Ave.  
Suite A-8  
Portland, OR 97218  
(503) 326-2346

I have enclosed a grant proposal for the Capitol Chapter OHA to consider. This document identifies what Wildlife Services will do if we are successful in receiving a renewal of our State OHA Grant and there is a continuation of funding from county/local OHA chapters and private ranchers/landowners. Please note that I am requesting \$2,000 over the next two years which we would accept as two payments of \$1,000 each in October 2007 and October 2008. If this is not acceptable to chapter members than please consider continuing to provide \$1,000 per year and we will reapply in 2008 for the other \$1,000.

I am also enclosing spread sheets that indicate our accomplishments this past year. They show hours flown and coyotes taken by month, for each county we flew in. Overall, we had a very good year with more hours flown and more coyotes taken (559.6 hours and 3582 coyotes) than in previous years. On an individual county basis we may not have achieved flying more hours and taking more coyotes. This was the case with Morrow County. We did not get off to an aggressive start in Morrow County and when we had intended to concentrate some flights to benefit game species in Morrow County in early June we were required to shut our operations down due to a fatal accident our program sustained in Utah. By the time the moratorium on flying was lifted we could only get one more flight in conducted in early July. During this next year we will take a more aggressive approach to flying Morrow County provided we have the funds to do so.

I hope we have not lost the Chapter's confidence in our ability to deliver results in Morrow County or any other location the Capitol Chapter would want to invest in. You have my word that we will make every effort to fly more in Morrow County next season should we have your financial support.



Safeguarding American Agriculture  
APHIS is an agency of USDA's Marketing and Regulatory Programs

An Equal Opportunity Provider and Employer



(b)(6)

07/16/2007 11:08 AM

To David.E.Williams@aphis.usda.gov

cc

bcc

Subject Re: OHA Grant Time Again!

History:

✉ This message has been replied to.

The Portland Chapter has a long record of supporting your applications so I would contact the chapter (b)(6) . If that doesn't produce results immediately, our chapter will sign off on it.

You will also need to have a Regional Director sign it and think that (b)(6) : did it last year. (b)(6) r. Contact them and let me know if you do not have success - there are more Director to contact if necessary.

(b)(6)

(b)(6)

Good luck and I'll talk to you soon -

(b)(6)

David.E.Williams@aphis.usda.gov wrote:

(b)(6)

Don left me a message that he will be out till July 28. What do you suggest as the best way of going about getting the proper signatures in the appropriate manner and in the time frame we need to get the paperwork submitted? I will drive around gathering signatures if need be.

Thanks,  
Dave

--  
"I predict future happiness for Americans if they can prevent the government from wasting the labors of the people under the pretense of taking care of them." - Thomas Jefferson

If your membership has questions regarding our operations please contact me. In the past we have made a presentation to your chapter and we participate in other OHA chapter meetings as well.

I look forward to a continuation of working with OHA at the State and local level. The aerial hunting which is cost shared by sportsmen and private ranchers/landowners continues to expand and result in more coyotes being removed for the mutual benefits to wildlife species and livestock.

Thank you for your contributions in the past.

Sincerely,

A handwritten signature in cursive script, appearing to read "David E. Williams". The signature is written in black ink and includes a long, sweeping horizontal stroke at the end.

David E. Williams  
State Director

Encl:



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION**

**Summary Page**

1. Project Title: Incidental Benefits of Livestock Predation Management for Wildlife Species
  
2. Applicant: USDA-APHIS-Wildlife Services  
 Address: 6135 NE 80<sup>th</sup>, Suite A-8  
 City/State/ZIP: Portland, OR 97218 Telephone: (503) 326 - 2346  
 E-mail address:  david.e.williams@usda.gov  
 Signature: David E. Williams Title: St. Director Date: 07 /23 /07
  
3. Project Location: Eastern Oregon on public and private land  
 County: \_\_\_\_\_ Township, Range, Section(s): \_\_\_\_\_
  
4. Type of Project: Wildlife Management: X Habitat Improvement: \_\_\_\_\_ Hunter Education: \_\_\_\_\_  
 Other: \_\_\_\_\_
  
5. Proposed Start Date: October 2007
  
6. Estimated Total Cost of Project: \$ 253,417
  
7. Capitol OHA Chapter funding requested: \$2,000 (\$1,000 for 2007-2008 and \$1,000 for 2008-2009)
  
8. OHA Volunteer Hours proposed: \_\_\_\_\_
9. Briefly explain the purpose of the project: Conduct aerial hunting of coyotes to protect livestock in areas where ODFW has identified coyotes as the reason game management objectives have not been met, or conduct aerial hunting of coyotes for the incidental benefits to game species. ODFW can request USDA-APHIS-WS to help reduce predation on game populations.
10. Complete and attach proposed project detail pages, and include additional maps, photos etc. as needed.

Send the application to: Capitol Chapter, OHA

(b)(6)



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail**

**Project Title: The Incidental Benefits of Livestock Predation Management for Wildlife Species**

**1. Background: (Describe the wildlife management and or habitat challenge this project will address.)**

Locally in Eastern Oregon, ODFW Biologists and sportsmen are concerned over the decline of deer and antelope. Where predation is suspected to be a contributing factor, predation management can be a beneficial wildlife management tool when selectively and strategically applied. Aerial hunting of coyotes can be a very selective coyote removal tool that USDA-APHIS-Wildlife Services can use to address predation.

Predation is a naturally occurring phenomenon. There is abundant evidence that predator and prey numbers fluctuate in healthy ecosystems and that the number of either is unlikely to become so low or so high as to warrant concern (e.g., Errington 1967). However, there are also many instances in which ecosystem health has been negatively affected by weather, fire, human disturbance, removal of top predators, introductions of exotic flora or fauna, etc. In these circumstances, predators may have significant negative impacts on prey (Hecht and Nickerson 1999) and populations of the latter may be driven significantly low to draw attention of managers, and, ultimately, the expenditure of public and private funds. One tool that can be implemented to benefit threatened prey species and to improve the recruitment of younger individuals into the population is predation management.

**Management to improve fawn survival-** Both mule deer (*odocoileus hemionus*) and pronghorn (*Antelocapra americanus*) fawn survival can be increased by management activities that decrease predation by coyotes (e.g., Haily 1979, Knowlton 1976). For the latter, predation of unprotected fawns can approach 90%, although factors such as alternative prey, age structure of the coyote population and synchrony of fawning all play a factor (Dunbar et al. 1999, Byers 1997).

When predation management programs are implemented, pronghorn fawn survival and the recruitment of young individuals into the adult population can increase dramatically. Smith et al. (1986) noted that predation management could result in 100% annual increases in population size. In general, management activities that remove coyotes after breeding territories are established but prior to fawning can double fawning success.

Similarly, mule deer fawn survival can be increased when coyote populations are seasonally suppressed in fawning habitat. In Utah, coyote predation management was applied to deer hunt units where populations were depressed (<50% of herd objectives as specified by the Utah Division of Wildlife Resources), fawn recruitment was low (<50 fawns:100 does) and the population trend was stable to declining (Utah Division of Wildlife Resources 1996). In one such unit, fawn survival increased from 30.75 fawns:100 does to 51:100. In a third, fawn survival increased from 50:100 to 64:100 as a result of coyote management efforts.

**Management to protect endangered species-** Bighorn sheep (*Ovis Canadensis*) are affected by lions throughout their range. In California, lion predation has resulted in the emergency listing of this species, to allow for lion management. Restoration of bighorn sheep in Utah has been limited due by lion predation, and removal of lions is believed to be instrumental to the success of restored populations (Utah Division of Wildlife Resources 1996).

Black-footed ferret (*Mustella nigripes*) populations are severely impacted by coyote predations, especially following restoration efforts (Utah Division of Wildlife Resources 1995). In studies of restoration success in South Dakota, 30 day survival rates averaged 31% in the absence of predation management, but 67.5% with predation management in place. Based upon an introduction of 50 ferrets, the difference in survival with and without predation management and using an average individual value of \$29,132, 18 ferrets would be saved with predation management producing \$524,376 in financial benefit. Perhaps more significant, since nearly all of the ferret survival occurred in the presence of predation management, the success of the entire restoration effort arguably could be said to hinge on the application of this one management tool.

**Management to protect upland birds and nesting waterfowl-** Upland game bird populations may be affected by predation, including the direct predation of chicks and adults as well as nest predation. Again, while predation may be natural phenomena, several species have been shown to be negatively impacted. In one population of sage grouse in Utah, annual adult mortality due to predation (primarily non-native red fox) was 82% without fox control in place while only 33% with fox control (Bunnell and Flinders 1999). Grouse nests are also predated. Ten of 19 (53%) sage grouse nests on Parker Mountain in Utah were destroyed by ravens (T. A. Messmer, pers. Commun.). In an artificial nest predation study in Idaho sage grouse habitat, 28% of nests placed in a predator control area were destroyed while 98% were destroyed in an adjacent no control area (Collinge and Maycock, 2000).

In two study sites in southern Utah, pheasant (*Phasianus colchicus*) populations doubled in treatment (predator control) areas relative to nearby no-treatment areas. In northern Utah, a similar study increased pheasant on areas with good pheasant habitat, but an overall increase was not noted (Frey et al. 2000). The conditional nature of the northern Utah result was attributed to the small size of the study plots involved, and the amount of pheasant habitat available for treatment.

Production by nesting waterfowl also can be improved by predation management. Adult survival during the nesting season also can be improved. Red fox alone are reported to kill 18% of nesting hen mallards in North Dakota annually, and kill an estimated 900,000 adult ducks (predominately hens) each year in the prairie pothole region. In a predator removal demonstration project, nest success in the treatment (predator removal) site was 71% while nest success on the no treatment site was 14%. The difference was compounded by the treatment site containing 166% more nests than the no treatment site, which could indicate that predation management could lead to increased productivity due to nest site selection by duck pairs as well as decreasing actual predation. Numerically, 178 nests successfully hatched on the treatment site, compared to only 21 nests on the no treatment site, an 847% increase in total nest productivity. Cost for treatment was \$2.00/acre, assuming the benefits extended only to the treatment site itself. If the benefit of predator removal extended outside of the treatment area 2 miles, costs dropped to \$0.48/acre (Jones 1994).

#### **Case Studies of Big Game Protection-**

The present discussion focuses on the cost of conventional predation management and the effect applications of these methods have on wildlife numbers. Much of the best available data has been generated in Utah; a series of case studies is presented below. Each of the areas discussed is a big game management unit that was selected by the Utah Division of Wildlife Resources for predation management activity. Selection highlights an important caveat which, although previously stated, is worth reiteration here. Specifically, the timing of predation management, habitat characteristics, game abundance relative to carrying capacity, and a variety of other factors can and do influence game populations. Like any wildlife management tool, managers must select methods carefully so that the critical features limiting recruitment are addressed.

**Henry Mountains mule deer.** Using aerial hunting from fixed and rotary wing aircraft and coyote removals by ground personnel, the cost of fawn protection from coyotes was \$6.96 per sq. mile treated in 1997 and \$8.69 per sq. mile in 1998. Overall, the cumulative cost for two years of fawn protection in this unit was \$15,841. Recruitment was improved substantially; herd size increased by 600 animals, reversing a 5 year decline (Bodenchuk 1999). The civil value assigned to mule deer is \$300. Accordingly, the net benefit for two years work was \$180,000, permitting calculation of a benefit:cost ratio of 11.4:1.

**Bookcliffs mule deer.** - Intensive hunting of coyotes on fawning grounds cost \$11,000 in 1997, or \$66.87 per sq. mile. Recruitment improved substantially, and herd size increased by 667 animals (Bodenchuk 1999). Accordingly, the net benefit was \$200,100. The benefit:cost ratio of this project was 18:1.

**Pahvant mule deer.**- Using aerial hunting and coyote removals by ground personnel, three years of deer fawn protection cost \$27,480 and resulted in an estimated increase of 2,073 fawns worth \$621,900 (Bodenchuk 1999). The benefit:cost ratio of this project was 22.6:1.

**Pronghorn.**- Pronghorn protection has been extensively evaluated, much more so than mule deer, and is nearly always considered to be cost beneficial. For example, Smith et al. (1986) evaluated the benefit:cost of predation management using the cost of pronghorn permits plus estimated hunter expenditures. A management schedule that involved the removal of territorial coyotes every other year yielded the greatest return, a benefit:cost ratio of 1.92:1. Depending on herd size, Smith et al. (1986) argued that benefits in the range of 2:1 and 3:1 could be expected.

Overall, then, the range of benefit:cost ratios for predation management to protect wildlife ranged between 2:1 and 22.6:1. In FY 1998, Wildlife Services programs in the Western Region spent \$2,936,068 (federal and cooperative combined) on this activity. Accordingly, the benefits of Wildlife Services predation management to protect wildlife ranged between \$5,872,136 to \$66,355,137.

## **Incidental Benefits of Predation Management for Livestock Protection to Wildlife**

The example above lead to the conclusion that predation management can be a beneficial wildlife management tool when selectively and strategically applied. Since wildlife in crisis often co-exist with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in the treatment areas. The degree of incidental benefit may depend on the timing and intensity of management efforts. Several case studies follow to illustrate this point.

In Utah, five deer management units received intensive coyote control for domestic sheep grazing on summer range (fawning range for deer). Despite a severe winter loss in 1992-93, these units averaged 74.4% of the Utah Division of Wildlife Resource's deer herd objective in 1995, an average increase in herd size of 6.4% over 1994 numbers. Three other deer management units received intensive coyote control for winter sheep grazing (winter range for the deer herd) and in 1995 averaged 50.3% of objective and were increased by 2.3% over 1994 numbers. Finally, nine deer management units received no predation management efforts by WS during the period. These units averaged 39.7% of objective and were decreased at an average of 1.1% from 1994 numbers.

In Texas, intensive coyote control for sheep and goat protection may be one cause of high deer survival and densities in the Edward's Plateau. Whether these densities are biologically good or bad depends on the degree to which deer management is concurrently applied. Unchecked deer populations overuse available forage and in turn may argue against predation management in certain areas. This final point highlights the fact that predation management can have negative effects on other species of wildlife (Kie et al. 1979).

## **2. Project Objective:**

- a. What is the objective of the proposed project?

Increase hunter opportunity through predator management and greater access to private lands.

- b. How will the project benefit wildlife management, habitat improvement, and/or hunters' rights?

There will be a reduction in predation on game species in areas open to hunters. The cost sharing of this project will foster better relations between ranchers and sportsmen. More game and more hunter access will result in increased hunter opportunities in Eastern Oregon.

**Project Location:** (Attach a map and provide narrative description of the project location and how to get there from a major highway.)

Project will take place on public and private land in Eastern Oregon. Wildlife Services can conduct aerial hunting activities wherever livestock are legally present or where ODFW requests our assistance in addressing predation on game animals. Wildlife Services will secure written permission to access lands and will conduct project activities as, mutually agreed upon with OHA.

**Project procedure:** (Specifically describe how the project will be conducted – use separate pages for additional information, drawings or pictures.)

Areas where game species could benefit by reducing coyote predation on young game animals will be identified with input from ODFW District Biologists, federal land and wildlife managers, OHA and USDA-APHIS-WS biologists. OHA funds will be used to support aerial hunting of coyotes and locating coyote dens.

**Permits, Inter-Agency Coordination:** (Have all necessary permits been secured or applied for? Have all inter-agency coordination and approvals been initiated or secured?) USDA-APHIS-WS maintains close coordination with ODFW, ODA, USFS, BLM, USFWS, Indian Tribes and county governments through cooperative agreements and memorandum of understanding and annual coordination meetings.

NEPA requirements have been met to allow WS to work on private and public lands.

USDA-APHIS-WS has authority to shoot coyotes and feral pigs from aircraft.



**PROJECT PROPOSAL AND GRANT APPLICATION**  
**Project Detail (continued)**

**Project Schedule:**

- a. Start Date: October 2007 Completion Date: September 2008
- b. List major project activities and time schedule for each.

Activity	Time (Month/Year)
-Aerial hunting of coyotes removing coyotes and locating dens for removal.	-October 2007 through early July 2008 -When deer move to wintering ground and coyote breeding season through fawning and kidding season.

**Participation:** (What organizations will participate in the project? List and describe the participation, and attach letters of commitment or verification of other grant awards to be involved in this project. You do not need to include individuals.)

Participant	Activity
ODFW	-Identify areas where predator control would benefit wildlife.
OHA State & local Chapters	-Assist in local coordination of aerial hunting.
BLM, USFS, USFWS	-Identify areas on federal lands where project can be carried out.
USDA-APHIS-WS	-Conduct and report on aerial hunting operations and results.
Counties	-Provide funding for ground crews and aerial hunting in areas adjacent to areas where OHA funds are being used.
Private ranchers/landowners	-As many as 124 individuals will contribute funding to support aerial hunting in counties where OHA funding will be used.
Safari Club International	-Funding aerial hunting in the western portion of Beaty's Butte Unit (western Harney Co. & eastern Lake Co.).
Mule Deer Foundation	-Funding from the Eastern OR/Western ID Chapter of MDF to support aerial hunting of coyotes in northern Malheur Co.

**Funding:**

- a. List other sources and amount of project funds (include in budget on page 5).
  - Federal funds (\$155,676) to cover salaries and benefits of pilots and gunners, when they are not flying, all of the ferry time expenses and overhead expenses. This allows all non federal funds to be used to support aerial hunting hours flown.
  - Local OHA Chapter funds (\$17,500)
  - Private ranchers/landowners (\$31,510)
  - Safari Club International (\$2,500)
  - Mule Deer Foundation (\$???)
  - County Governments (\$13,500)

- b. Have any conditions been placed on funds listed in "a." above, which may affect the completion of the project? If so, identify and explain.  
No, what ever OHA provides will be used as mutually agreed upon by OHA and WS.

**Project Maintenance and Monitoring:**

- a. Who will maintain the project and fund long-term maintenance and/or operation, if needed?  
USDA-APHIS-WS, contingent on federal, state and county funding.
- b. What element(s) of the project will be monitored, how often, for how long?  
-Aerial hunting activities will be monitored annually for NEPA compliance.  
-Annual reports will be provided to OHA and project updates will be provided as desired by OHA.

**How will OHA be publicly recognized for its contribution to this project?**

When Wildlife Services attends livestock association meetings throughout the year we recognize OHA's support of the aerial hunting program we deliver. Livestock associations recognize the mutual benefits to livestock producers and wildlife when coyote control is jointly funded by ranchers, OHA and other sportsmen's groups. We have also recognized OHA's contribution to the Wildlife Services aerial hunting program at Safari Club International (SCI) meetings, Foundation of North American Wild Sheep (FNAWS) and other sportsmen groups meetings and Association of Oregon County meetings.

The cooperative relationship between OHA and private ranchers in supporting predator management is recognized by the Oregon Legislature's Ways and Means committee. Testimony describing this project during appropriations hearings has been well received by the legislators on the committee.



OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail (continued)

Project Cost Estimate:

Category	OHA Funds	Other Funds	Total Cost	Remarks
Administration				
-Training		\$3,170	\$3,170	
-Accounting/Admin		\$3,000	\$3,000	
Construction				
Materials (Itemize)				
Supplies				
-Shotguns		\$2,138	\$2,138	
-Misc. Supplies		\$1,000	\$1,000	
-Cell phones/radio equip		\$7,000	\$7,000	
Contract Services				
-Ammunition	\$4,213	\$4,819	\$9,302	
-Fuel & Oil	\$9,849	\$18,715	\$28,564	
-Regular Maintenance *		\$17,731	\$17,731	
-Travel *				
-Ferry Time		\$12,663	\$12,663	**
-Pilot & gunner	\$938	\$125,471	\$126,409	
-ground crew *		\$13,440	\$13,440	
-Hangar Fees		\$1,000	\$1,000	
*NOTE: OHA funds will be used to cover portions of the expenses for ammunition, fuel & oil, regular maintenance, aerial hunting crew salaries & benefits, and per diem for flight crews. All ferry time and salaries & benefits for aerial hunting crews when not conducting aerial hunting missions will be covered by federal funds.				
**NOTE: Salary & benefit cost of pilot & gunner while ferrying is \$12,663 and is not contained in the \$113,754 identified in Pilot and gunner cost.				
Equipment (Itemize)				
-New engine		\$28,000	\$28,000	
<b>Total Cost</b>	<b>\$15,000</b>	<b>\$238,147</b>	<b>\$253,417</b>	



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report**

Project Name: Incidental Benefits of Livestock Predation Management for Wildlife Species

Location: Eastern Oregon on public and private lands open to hunting

Grantee: USDA-APHIS-Wildlife Services

Address: 6135 NE 80<sup>th</sup>, Suite A-8  
Portland, OR 97218

Phone: (503) 326-2346

1. Briefly describe the project objective(s):

Generate cost share funding between OHA, private ranchers and the USDA-APHIS-WS program to support aerial hunting of coyotes in eastern Oregon. OHA funds will help restore some of the aerial hunting hours that Wildlife Services has had to cut due to a reduction in funds from the Oregon Department of Agriculture. Since wildlife in crisis often co-exists with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in treatment areas.

2. Describe the project accomplishments (indicate any changes from proposed to actual accomplishments):

In general our accomplishments this past year exceeded what we were able to do in FY 2006. In a few of the counties our hours and coyotes taken were down some due to a couple variables but in many counties our hours and coyotes taken were up significantly. This was due to us maintaining veteran crews and our two Christian Husky aircraft that have superior ferry speed and larger fuel capacity than super cubs we have used in the past. The Husky aircraft have given us better range and ability to respond more quickly to predation events. Our hours of hunting flown continue to increase with 399.3 flown in 2004, 432.5 in 2005, 534.3 in 2006 and 559.6 in 2007. Because we have invested in a new aircraft and a full time gunner we expect the number of hours to continue to increase along with our effectiveness. Our coyote take increased in FY 2007 with 3,582 coyotes taken compared to 3,058 taken in FY 2006 and 1,511 taken in 2003. The Wildlife Services program also located 52 dens from the air. The destruction of coyote dens is very effective in curtailing predation. Each den removed could mean the removal of 2 adults and up to 7 pups.

Due to the grants from OHA at the State and local chapter levels and the additional funding from the other sources noted in this grant proposal we are now exceeding the level of our FY 2001 coyote take in eastern Oregon with 3,582 taken by aircraft in 2006-2007. FY 2001 was the last year both planes were running full steam with no funding problems. State cuts hit us hard in FY 2002 and greatly reduced our ability to fund our aerial program. The number of coyotes taken this past year (3,582) via the aircraft is the highest over the past 11 years. If the OHA grants continue, I am confident the other sources of funds would also continue, thus enabling us to meet or exceed our coyote take in FY 2006-2007.

There is a two page summary chart for 2006-2007 showing hours flown and coyotes taken, broken down by county included with this grant package.

Wildlife Services covered the expenses of the 201.5 hours of ferry time/training and maintenance flight time associated with this project.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report (continued)**

3. Summarize how OHA Grant and Grantee funds were spent on this project (indicate any changes from proposed to actual spending activities):

<u>Expenditure Category</u> (i.e. materials, labor, equipment, etc.)	<u>OHA Grant Funds</u>	<u>Other Grantor Funds</u>	<u>Grantee Funds</u>	<u>Total Cost</u>
	\$27,500*	\$31,510	\$173,407	\$253,417**

\*Note: There was actually a total \$27,000 plus in OHA funds available directly through the OHA State Grant of \$10,000 and \$17,500 from local OHA Chapters. The Crook County chapter of OHA provided \$2,000, but because we did not fly as much as planned we have a balance of \$1,000 with the balance remaining in trust for use next year. Also, it should be noted that the Portland Chapter of OHA provides funding directly to the Wallowa County Predator District which helps pay for some of the aerial hunting we conduct in that county. Harney County OHA has continued to maintain a \$10,000 balance in a trust fund with plans to replenish it annually over the next few years.

\*\*Note: The \$31,510 in other Grantor funds used came from private ranchers/landowners and Safari Club International, and County governments. OHA funds were used with other Grantor funds as described in the 2006 Grant proposal in counties identified by OHA with input from ODFW. Grantee funds were used to cover ferry time, flight time associated with training and maintenance, equipment upgrades, administrative costs and salary & benefits of pilots and gunners when they were not conducting aerial hunting missions associated with this project.

4. Describe the educational opportunities provided through this project (if applicable):

This project is an opportunity to educate the legislative and political figures on the importance of sportsmen and ranchers in providing habitat and funding for wildlife management. The project is fostering good relations between the hunting and ranching community resulting in more hunting opportunities.

5. Describe how this project has benefited wildlife and/or wildlife habitat:

A good example of the benefits of aerial hunting to antelope herds is Beaty Butte Unit (West), ODFW Unit #70 and the Warner Unit, ODFW Unit #74 where we have focused OHA and Safari Club International funding to conduct aerial hunting. Based on the ODFW 2006 annual report of Antelope Trend Inventory from the Lake District the number of kids per 100 does in both units was 70, far surpassing other units. We have flown these areas with OHA funds and Safari Club International funds the previous two years. The report also indicated that the Beaty Butte (W) and Warner units have a significantly higher count of antelope per mile with counts of 8.4 and 9.8 antelope per mile respectively. These counts are significantly higher than units we do not aerial hunt.

Wildlife Services has evaluated the benefit:cost ratio of coyote control to protect game species and has found predation management activities to protect wildlife show benefit:cost ratios ranging from 2:1 to 22:1. Predation management at times is key to game populations reaching management objectives developed by wildlife managers.

Wildlife Services will continue to coordinate with ODFW Biologists to determine where benefits to both game and livestock may be realized when aerial hunting of coyotes is conducted.

6. Describe how the project has benefited you as a landowner (...or conservation group, association, agency, cooperator, educational institution, etc.)  
Wildlife Services can use OHA funds and rancher funds to support our very important aerial hunting tool in Eastern Oregon. We can effectively address livestock killing with our aircraft which frees up time of our field people to address other wildlife conflicts.
7. If a research paper or report was a product of this project, please attach a copy.
8. If photographs were taken of the completed project, please attach copies.
10. Additional comments:  
We are available to make a presentation at your September Board meeting or local chapter meetings.

Grantee Signature:	<u>David F. Williams</u>	<b>Please return completion report to:</b> Capitol Chapter President Oregon Hunters Association 581 Lancaster Drive SE., #342 Salem, OR 97301-5642
Grantee name and title:	<u>State Director</u>	
Date:	<u>7/23/07</u>	

# FY07 OHA Aerial Hunting

County	Hours												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total Hours
Crook				4.3			4.1	4.7					13.1
Deschutes													0
Jefferson				1.2					3				4.2
Gilliam				3.8	6.4		4	3.7					17.9
Grant					5.4	3.8	2.3	3.1					14.6
Harney		8.7	18.4	28.4	6.8	38.2	8.7	13.8	11.6				134.6
Klamath			5.2	9.3	3.3		6.3	3.3	5.3				32.7
Lake		7.5	5.4	10	9.8	14.3	12.2	17.8	15.1				92.1
North Malheur			12.3	20.8		14	13.5	11.8	5.4				77.8
South Malheur	5.6		8	7.7	5.9	16.5							43.7
Sherman								3.5					3.5
Morrow			2.2		3.1		8.3	4.3	4.5	4.2			26.6
Umatilla				9.8	5.5	16.2	11.8	16.5					59.8
Union						3							3
Wallowa				5.4		9.6	6.9	8.2					30.1
Wasco				5.9									5.9
Wheeler													0
<b>Total</b>	<b>5.6</b>	<b>16.2</b>	<b>51.5</b>	<b>106.6</b>	<b>46.2</b>	<b>115.6</b>	<b>78.1</b>	<b>90.7</b>	<b>44.9</b>	<b>4.2</b>	<b>0</b>	<b>0</b>	<b>559.6</b>

Coyotes

County	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total Coyotes
Crook				15			19	10					44
Deschutes													0
Jefferson				7					6				13
Gilliam				8	20		16	5					49
Grant					54	44	18	12					128
Harney		98	125	198	40	259	70	96	23				909
Klamath			30	79	9		17	9	20				164
Lake		86	44	97	66	181	161	160	80				875
North Malheur			56	173		71	69	22	5				396
South Malheur	45		100	70	26	174							415
Sherman								7					7
Morrow			3		6		43	8	11	13			84
Umatilla				64	61	47	59	30					261
Union						19							19
Wallowa				52		56	31	21					160
Wasco				58									58
Wheeler													0
<b>Total</b>	<b>45</b>	<b>184</b>	<b>358</b>	<b>821</b>	<b>282</b>	<b>851</b>	<b>503</b>	<b>380</b>	<b>145</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>3582</b>



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OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Summary Page

1. Project Title: Incidental Benefits of Livestock Predation Management for Wildlife Species

2. Applicant: USDA-APHIS-Wildlife Services

Address: 6135 NE 80<sup>th</sup>, Suite A-8

City/State/ZIP: Portland, OR 97218 Telephone: (503) 326 - 2346

E-mail address: david.e.williams@aphis.usda.gov

Signature: David E. Williams Title: St. Director Date: 07/14/09

3. Project Location: Eastern Oregon on public and private land where hunters have access

County: \_\_\_\_\_ Township, Range, Section(s): \_\_\_\_\_

4. Reviewed and recommended by OHA Harney County Chapter.  
Chapter recommends  Approval  Denial Attach comments, if any.

Chapter President signature: \_\_\_\_\_ (b)(6) Date: 7-20-09

Regional state board signature: David M. Donald Date: 7-20-09  
Regional state board director recommends  Approval  Denial Attach comments, if any.

5. Type of Project: Wildlife Management:  Habitat Improvement:  Hunter Education:

Other: \_\_\_\_\_

6. Proposed Start Date: October 2009

7. Estimated Total Cost of Project: \$ \_\_\_\_\_

8. OHA Funding requested: \$ 12,000

9. OHA Volunteer Hours proposed: \_\_\_\_\_

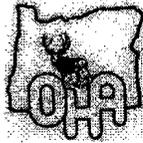
10. Briefly explain the purpose of the project: Conduct aerial hunting of coyotes to protect livestock in areas where ODFW has identified coyotes as the reason game management objectives have not been met, or conduct aerial hunting of coyotes for the incidental benefits to game species. ODFW can request USDA-APHIS-WS to help reduce predation on game populations. Special attention to Access and Habitat (A&H) areas or Game Management Areas identified in ODFW Mule Deer Initiative plans can be coordinated within this project.

11. Complete and attach proposed project detail pages, and include additional maps, photos etc. as needed.

Send the application to: Oregon Hunters Association  
Attn: Grant Committee  
P.O. Box 1706  
Medford, OR 97501

Board Action: Denied  Approved  For the amount of \$ \_\_\_\_\_  
Conditions:

Board Chair signature: \_\_\_\_\_ Date: \_\_\_\_\_ Assigned to regional board member \_\_\_\_\_ for coordination.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail**

**Project Title:** The Incidental Benefits of Livestock Predation Management for Wildlife Species

**1. Background:** (Describe the wildlife management and or habitat challenge this project will address.)

Locally in Eastern Oregon, ODFW Biologists and sportsmen are concerned over the decline of deer and antelope. Where predation is suspected to be a contributing factor, predation management can be a beneficial wildlife management tool when selectively and strategically applied. Aerial hunting of coyotes can be a very selective coyote removal tool that USDA-APHIS-Wildlife Services can use to address predation.

Predation is a naturally occurring phenomenon. There is abundant evidence that predator and prey numbers fluctuate in healthy ecosystems and that the number of either is unlikely to become so low or so high as to warrant concern (e.g., Errington 1967). However, there are also many instances in which ecosystem health has been negatively affected by weather, fire, human disturbance, removal of top predators, introductions of exotic flora or fauna, etc. In these circumstances, predators may have significant negative impacts on prey (Hecht and Nickerson 1999) and populations of the latter may be driven significantly low to draw attention of managers, and, ultimately, the expenditure of public and private funds. One tool that can be implemented to benefit threatened prey species and to improve the recruitment of younger individuals into the population is predation management.

**Primary and secondary effects of predation-**

In addition to the primary negative effects of predation (i.e., how many of the affected prey species are directly killed by predators) there is a growing body of evidence that points to significant secondary effects of predation (Wehausen 1996, Ripple and Larsen 2000, Ripple et al. 2001, Barber et al. 2004, Preisser et al. 2005). Secondary effects in this context are negative effects to prey populations because of species "displacement" or antipredator behavior in prey (i.e., predators cause adaptive shifts in prey through shifts in behavior or occupied habitats) caused by predators (Morse 1980, Edwards 1983, Risenhoover and Bailey 1985, Lima et al. 1985, Ferguson et al. 1988, Hoban 1990, Lima and Dill 1990, Schmitz et al. 1997, Kie 1999) or the risk from predators (Creel et al. 2005). Secondary predation can be thought of as a trade-off by prey to reduce predation risks, but possibly at the expense of utilizing more favorable foraging or cover habitat, shifting daily activities, reduced reproductive success or other life history requirements (Burk 1982, Lima and Dill 1990, Hecht and Nickerson 1999, Ballard et al. 2001, Preisser et al. 2005). A secondary effect of predation could be the restriction of range utilization by prey species to areas adjacent to escape terrain/cover (Bergerud et al. 1983, Bergerud and Page 1987, Wehausen 1996, Bleich et al. 1997, Bleich et al. 1997, Kunkel and Pletscher 2000, Creel and Winnie 2005, Creel et al. 2005), interspecific competition with other prey species (Gill et al. 2001) and distribution of prey over their range (Messier and Barrette 1985, Molvar and Bowyer 1994). The behavioral response to predation or predation risk may result in reduced nutrient intake and lower offspring survival in prey species which can lead to a population decline or an animal in poor condition which may choose a foraging strategy more risky than an animal that is well fed (Skogland 1991a, Bleich et al. 1997).

In most cases, the assessment of predation impacts is limited to primary impacts. When the potential for secondary predation impacts is considered, it is difficult to assess whether predation or habitat are limiting, since one influences the other.

Habitat can be limiting and habitat management is necessary. Habitat management is a process and not a goal for management agencies. Once habitat is manipulated it progresses towards a climax vegetative community. Wildlife biologists and landowners must commit to habitat management on a continual basis to meet the diverse needs of multiple wildlife species and humans.

Because habitat management is necessary, because predators can affect habitat selection and use and because predation management can benefit habitat projects, it is inappropriate to look at issues as a "habitat v. predators."

Predation management can play a role in assisting species within the confines of existing habitat and habitat management provides habitat for the future.

**Management to improve fawn survival-** Both mule deer (*Odocoileus hemionus*) and pronghorn (*Antilocapra americana*) fawn survival can be increased by management activities that decrease predation by coyotes (e.g., Haily 1979, Knowlton 1976). For the latter, predation of unprotected fawns can approach 90%, although factors such as alternative prey, age structure of the coyote population and synchrony of fawning all play a factor (Dunbar et al. 1999, Byers 1997).

When predation management programs are implemented, pronghorn fawn survival and the recruitment of young individuals into the adult population can increase dramatically. Smith et al. (1986) noted that predation management could result in 100% annual increases in population size. In general, management activities that remove coyotes after breeding territories are established but prior to fawning can double fawning success.

Similarly, mule deer fawn survival can be increased when coyote populations are seasonally suppressed in fawning habitat. In Utah, coyote predation management was applied to deer hunt units where populations were depressed (<50% of herd objectives as specified by the Utah Division of Wildlife Resources), fawn recruitment was low (<50 fawns:100 does) and the population trend was stable to declining (Utah Division of Wildlife Resources 1996). In one such unit, fawn survival increased from 30.75 fawns:100 does to 51:100. In a third, fawn survival increased from 50:100 to 64:100 as a result of coyote management efforts.

**Management to protect endangered species-** Bighorn sheep (*Ovis Canadensis*) are affected by lions throughout their range. In California, lion predation has resulted in the emergency listing of this species, to allow for lion management. Restoration of bighorn sheep in Utah has been limited due by lion predation, and removal of lions is believed to be instrumental to the success of restored populations (Utah Division of Wildlife Resources 1996).

Black-footed ferret (*Mustella nigripes*) populations are severely impacted by coyote predations, especially following restoration efforts (Utah Division of Wildlife Resources 1995). In studies of restoration success in South Dakota, 30 day survival rates averaged 31% in the absence of predation management, but 67.5% with predation management in place. Based upon an introduction of 50 ferrets, the difference in survival with and without predation management and using an average individual value of \$29,132, 18 ferrets would be saved with predation management producing \$524,376 in financial benefit. Perhaps more significant, since nearly all of the ferret survival occurred in the presence of predation management, the success of the entire restoration effort arguably could be said to hinge on the application of this one management tool.

Here in Oregon, recovery efforts for the Federally Threatened Western Snowy Plover (Plover) were enhanced immensely with lethal removal of avian and mammalian predators. Prior to 2003 the focus on plover protection was restricted habitat management involving the removal of exotic European beach grass that choked out bare sand nesting areas that the plovers nest in and the use of wire cage like predator exclosures. Millions of dollars have been spent on these non lethal methods that produced an average of 37 fledglings each year. After lethal removal of predators was implemented in conjunction with the on-going non-lethal methods fledgling success increased dramatically with a high of 107 fledglings produced in 2007. The cost of lethal control of predators to protect plovers averages \$80,000 per year now

**Management to protect upland birds and nesting waterfowl-** Upland game bird populations may be affected by predation, including the direct predation of chicks and adults as well as nest predation. Again, while predation may be natural phenomena, several species have been shown to be negatively impacted. In one population of sage grouse in Utah, annual adult mortality due to predation (primarily non-native red fox) was 82% without fox control in place while only 33% with fox control (Bunnell and Flinders 1999). Grouse nests are also predated. Ten of 19 (53%) sage grouse nests on Parker Mountain in Utah were destroyed by ravens (T. A. Messmer, pers. Commun.). In an artificial nest predation study in Idaho sage grouse habitat, 28% of nests placed in a predator control area were destroyed while 98% were destroyed in an adjacent no control area (Collinge and Maycock, 2000).

In two study sites in southern Utah, pheasant (*Phasianus colchicus*) populations doubled in treatment (predator control) areas relative to nearby no-treatment areas. In northern Utah, a similar study increased pheasant on areas with good pheasant habitat, but an overall increase was not noted (Frey et al. 2000). The conditional nature of the northern Utah result was attributed to the small size of the study plots involved, and the amount of pheasant habitat available for treatment.

Production by nesting waterfowl also can be improved by predation management. Adult survival during the nesting season also can be improved. Red fox alone are reported to kill 18% of nesting hen mallards in North Dakota annually, and kill an estimated 900,000 adult ducks (predominately hens) each year in the prairie pothole region. In a predator removal demonstration project, nest success in the treatment (predator removal) site was 71% while nest success on the no treatment site was 14%. The difference was compounded by the treatment site containing 166% more nests than the no treatment site, which could indicate that predation management could lead

to increased productivity due to nest site selection by duck pairs as well as decreasing actual predation. Numerically, 178 nests successfully hatched on the treatment site, compared to only 21 nests on the no treatment site, an 847% increase in total nest productivity. Cost for treatment was \$2.00/acre, assuming the benefits extended only to the treatment site itself. If the benefit of predator removal extended outside of the treatment area 2 miles, costs dropped to \$0.48/acre (Jones 1994).

#### **Case Studies of Big Game Protection-**

The present discussion focuses on the cost of conventional predation management and the effect applications of these methods have on wildlife numbers. Much of the best available data has been generated in Utah; a series of case studies is presented below. Each of the areas discussed is a big game management unit that was selected by the Utah Division of Wildlife Resources for predation management activity. Selection highlights an important caveat which, although previously stated, is worth reiteration here. Specifically, the timing of predation management, habitat characteristics, game abundance relative to carrying capacity, and a variety of other factors can and do influence game populations. Like any wildlife management tool, managers must select methods carefully so that the critical features limiting recruitment are addressed.

**Henry Mountains mule deer.** Using aerial hunting from fixed and rotary wing aircraft and coyote removals by ground personnel, the cost of fawn protection from coyotes was \$6.96 per sq. mile treated in 1997 and \$8.69 per sq. mile in 1998. Overall, the cumulative cost for two years of fawn protection in this unit was \$15,841. Recruitment was improved substantially; herd size increased by 600 animals, reversing a 5 year decline (Bodenchuk 1999). The civil value assigned to mule deer is \$300. Accordingly, the net benefit for two years work was \$180,000, permitting calculation of a benefit:cost ratio of 11.4:1.

**Bookcliffs mule deer.** - Intensive hunting of coyotes on fawning grounds cost \$11,000 in 1997, or \$66.87 per sq. mile. Recruitment improved substantially, and herd size increased by 667 animals (Bodenchuk 1999). Accordingly, the net benefit was \$200,100. The benefit:cost ratio of this project was 18:1.

**Pahvant mule deer.** - Using aerial hunting and coyote removals by ground personnel, three years of deer fawn protection cost \$27,480 and resulted in an estimated increase of 2,073 fawns worth \$621,900 (Bodenchuk 1999). The benefit:cost ratio of this project was 22.6:1.

**Pronghorn.** - Pronghorn protection has been extensively evaluated, much more so than mule deer, and is nearly always considered to be cost beneficial. For example, Smith et al. (1986) evaluated the benefit:cost of predation management using the cost of pronghorn permits plus estimated hunter expenditures. A management schedule that involved the removal of territorial coyotes every other year yielded the greatest return, a benefit:cost ratio of 1.92:1. Depending on herd size, Smith et al. (1986) argued that benefits in the range of 2:1 and 3:1 could be expected. Overall, then, the range of benefit:cost ratios for predation management to protect wildlife ranged between 2:1 and 22.6:1. In FY 1998, Wildlife Services programs in the Western Region spent \$2,936,068 (federal and cooperative combined) on this activity. Accordingly, the benefits of Wildlife Services predation management to protect wildlife ranged between \$5,872,136 to \$66,355,137.

#### **Incidental Benefits of Predation Management for Livestock Protection to Wildlife**

The examples above lead to the conclusion that predation management can be a beneficial wildlife management tool when selectively and strategically applied. Since wildlife in crisis often co-exist with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in the treatment areas. The degree of incidental benefit may depend on the timing and intensity of management efforts. Several case studies follow to illustrate this point.

In livestock predation, 80% of domestic lamb (*Ovis aries*) losses to coyotes are attributed to breeding (alpha) pairs (which represent <50% of coyote populations) (Connolly et al. 1976, Gese and Grothe 1995, Bromley and Gese 2001). In wildlife predation, the authors suspect a similar relationship may exist. Mule deer and pronghorn antelope fawns and all ground nesting birds are vulnerable (and apparently impacted) during pup rearing periods for coyotes as a result of the increased food requirements of raising young (Till 1983, Till and Knowlton 1992).

In Utah, five deer management units received intensive coyote control for domestic sheep grazing on summer range (fawning range for deer). Despite a severe winter loss in 1992-93, these units averaged 74.4% of the Utah Division of Wildlife Resource's deer herd objective in 1995, an average increase in herd size of 6.4% over 1994 numbers. Three other deer management units received intensive coyote control for winter sheep grazing (winter range for the deer herd) and in 1995 averaged 50.3% of objective and were increased by 2.3% over 1994 numbers. Finally, nine deer management units received no predation management efforts by WS during the period. These units averaged 39.7% of objective and were decreased at an average of 1.1% from 1994 numbers.

In Texas, intensive coyote control for sheep and goat protection may be one cause of high deer survival and densities in the Edward's Plateau. Whether these densities are biologically good or bad depends on the degree to which deer management is concurrently applied. Unchecked deer populations overuse available forage and in turn

may argue against predation management in certain areas. This final point highlights the fact that predation management can have negative effects on other species of wildlife (Kie et al. 1979).

**2. Project Objective:**

a. What is the objective of the proposed project?

Increase hunter opportunity through predator management and greater access to private lands.

b. How will the project benefit wildlife management, habitat improvement, and/or hunters' rights?

There will be a reduction in predation on game species in areas open to hunters. The cost sharing of this project will foster better relations between ranchers and sportsmen. More game and more hunter access will result in increased hunter opportunities in Eastern Oregon.

**Project Location:** (Attach a map and provide narrative description of the project location and how to get there from a major highway.)

Project will take place on public and private land in Eastern Oregon. Wildlife Services can conduct aerial hunting activities wherever livestock are legally present or where ODFW requests our assistance in addressing predation on game animals. Wildlife Services will secure written permission to access lands and will conduct project activities as, mutually agreed upon with OHA.

**Project procedure:** (Specifically describe how the project will be conducted – use separate pages for additional information, drawings or pictures.)

Areas where game species could benefit by reducing coyote predation on young game animals will be identified with input from ODFW District Biologists, federal land and wildlife managers, OHA and USDA-APHIS-WS biologists. OHA funds will be used to support aerial hunting of coyotes and locating coyote dens.

**Permits, Inter-Agency Coordination:** (Have all necessary permits been secured or applied for? Have all inter-agency coordination and approvals been initiated or secured?) USDA-APHIS-WS maintains close coordination with ODFW, ODA, USFS, BLM, USFWS, Indian Tribes and county governments through cooperative agreements and memorandum of understanding and annual coordination meetings.

NEPA requirements have been met to allow WS to work on private and public lands.

USDA-APHIS-WS has authority to shoot coyotes and feral pigs from aircraft.



**PROJECT PROPOSAL AND GRANT APPLICATION**  
**Project Detail (continued)**

**Project Schedule:**

- a. Start Date: October 2009 Completion Date: September 2010
- b. List major project activities and time schedule for each.
 

Activity	Time (Month/Year)
-Aerial hunting of coyotes removing coyotes and locating dens for removal.	-October 2009 through early July 2010 and some hours in September -When deer move to wintering ground and coyote breeding season through fawning and kidding season.

**Participation:** (What organizations will participate in the project? List and describe the participation, and attach letters of commitment or verification of other grant awards to be involved in this project. You do not need to include individuals.)

Participant	Activity
ODFW	-Identify areas where predator control would benefit wildlife.
OHA State & local Chapters	-Assist in local coordination of aerial hunting.
BLM, USFS, USFWS	-Identify areas on federal lands where project can be carried out.
USDA-APHIS-WS	-Conduct and report on aerial hunting operations and results.
Counties	-Provide funding for ground crews and aerial hunting to compliment what OHA funds are being used for.
Private ranchers/landowners	-As many as 130 individuals have contributed funding to support aerial hunting in counties where OHA funding has been used over the years. Private rancher participation will continue
Safari Club International	-Funding aerial hunting in the western portion of Beaty's Butte Unit (Western Harney Co. & Eastern Lake Co.).
Mule Deer Foundation	-Funding from the Eastern OR/Western ID Chapter of MDF to support aerial hunting of coyotes in Klamath Co. (currently) and Northern Malheur Co. (in the past)

**Funding:**

- a. List other sources and amount of project funds (include in budget on page 5).
  - Federal funds (\$162,654) to cover salaries and benefits of pilots and gunners, when they are not flying, all of the ferry time expenses, maintenance expenses not covered by other sources of funds, training expenses, hangar expenses and overhead expenses. This allows all non federal funds to be used to support aerial hunting hours flown.
  - Local OHA Chapter funds (\$16,000)
  - Private ranchers/landowners (\$18,375)
  - Safari Club International (\$3,750)
  - Mule Deer Foundation (\$1,500)
  - County Governments (none this past year\*)
  - ODFW (\$450)

\*Due to extreme State funding cuts from ODA- 75% cut= -\$322,616 and ODFW- 33%= -\$100,000 our county funds had to go to supporting our personnel on the ground. We will approach the counties this year for aerial hunting funds but county budgets are tight.

- b. Have any conditions been placed on funds listed in "a." above, which may affect the completion of the project? If so, identify and explain.  
No, what ever OHA provides will be used as mutually agreed upon by OHA and WS.

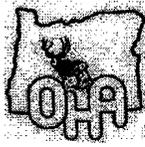
**Project Maintenance and Monitoring:**

- a. Who will maintain the project and fund long-term maintenance and/or operation, if needed?  
USDA-APHIS-WS, contingent on federal, state and county funding.
- b. What element(s) of the project will be monitored, how often, for how long?  
-Aerial hunting activities will be monitored annually for NEPA compliance.  
-Annual reports will be provided to OHA and project updates will be provided as desired by OHA.

**How will OHA be publicly recognized for its contribution to this project?**

When Wildlife Services attends livestock association meetings throughout the year we recognize OHA's support of the aerial hunting program we deliver. Livestock associations recognize the mutual benefits to livestock producers and wildlife when coyote control is jointly funded by ranchers, OHA and other sportsmen's groups. We have also recognized OHA's contribution to the Wildlife Services aerial hunting program at Safari Club International (SCI) meetings, Foundation of North American Wild Sheep (FNAWS), Pheasants Forever, Wildlife Heritage Foundation, Mule Deer Foundation, and other sportsmen groups meetings and Association of Oregon County meetings.

The cooperative relationship between OHA and private ranchers in supporting predator management is recognized by the Oregon Legislature's Ways and Means committee. Testimony describing this project during appropriations hearings has been well received by the legislators on the committee. I provided the OHA lobbyist, Al Elkins with data on sportsmen's contributions to the Wildlife Services program for his reports and testimony to the Legislature.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail (continued)**

**Project Cost Estimate:**

<u>Category</u>	<u>OHA Funds</u>	<u>Other Funds</u>	<u>Total Cost</u>	<u>Remarks</u>
Administration				
-Training		\$5,082	\$5,082	
-Accounting/Admin		\$3,000	\$3,000	
Construction				
Materials (Itemize)				
Supplies				
-Shotguns		\$2,138	\$2,138	
-Misc. Supplies		\$1,000	\$1,000	
-Cell phones/radio equip		\$7,000	\$7,000	
Contract Services				
-Ammunition	\$4,477	\$4,598	\$9,075	
-Fuel & Oil	\$5,000	\$19,385	\$24,385	
-Regular Maintenance *		\$20,082	\$20,082	
-Travel *				
-Pilot & gunner *	\$2,523	\$117,495	\$120,018	
-Ground Crew		\$13,750	\$13,750	
-Hangar Fees		\$1,000	\$1,000	
*NOTE: State OHA funds will be used to cover portions of the expenses for ammunition, fuel & oil, regular maintenance, aerial hunting crew salaries & benefits, and per diem for flight crews. Actual amounts by category may vary but total expenditures of OHA funds will not exceed \$12,000. All ferry time and salaries & benefits for aerial hunting crews when not conducting aerial hunting missions will be covered by federal funds.				
Equipment (Itemize)				
-New engine		\$28,000	\$28,000	
<b>Total Cost</b>	<b>\$12,000</b>	<b>\$222,530</b>	<b>\$234,530</b>	



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report**

Project Name: Incidental Benefits of Livestock Predation Management for Wildlife Species

Location: Eastern Oregon on public and private lands open to hunting

Grantee: USDA-APHIS-Wildlife Services

Address: 6135 NE 80<sup>th</sup>, Suite A-8  
Portland, OR 97218

Phone: (503) 326-2346

1. Briefly describe the project objective(s):

Generate cost share funding between OHA, other sportsmen's groups, private ranchers and the USDA-APHIS-WS program to support aerial hunting of coyotes in eastern Oregon. OHA funds will help maintain the number of aerial hunting hours we conduct and the number of coyotes we can take. Since wildlife in crisis often co-exists with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in treatment areas.

2. Describe the project accomplishments (indicate any changes from proposed to actual accomplishments):

In general our accomplishments this year's aerial hunting season (2008-2009), through June and in to July of 2009, were down compared to the last few years. We flew 362.2 hours and took 1,621 coyotes. Our trend for hours flown over the past 5 years is: 399.3 flown in 2004, 432.5 in 2005, 534.3 in 2006, 559.6 in 2007 and 505.9 in 2008. Our coyote take for 2008 through June was 3,256. Recent trends in coyote take: FY 2007 with 3,653, FY 2006 with 3,058 and in FY 2003 1,511 taken.

While this year's reduction in hours flown and coyotes taken may raise some eye brows I want to identify some contributing factors to our lower numbers this past season. We faced a few challenges this year with the need to replace one of our primary gunners in February, we had to replace an engine in our La Grande based plane which took it out of commission for nearly two weeks because of time to change the engine which includes sending the prop out for tuning and balance and then the engine has to go through a break in period before we can return to the aerial hunting. On top of that, in April which is a usually a month we fly a lot we experienced the worse flying weather in 20 years. Additionally, coyote numbers were down throughout most of Eastern Oregon, so that when we did get to fly we just didn't see the number of coyotes that we have been seeing the last 5 years. So, a combination of circumstances that reduced our flying hours and fewer coyotes observed per flight resulted in a lower coyote take this year. Biologists from ODFW conducting game counts also reported coyote numbers being down. ODFW biologists report that desert rodent populations crashed 2 years ago and the coyote population was responding to this. The rodent populations will rebound as will the coyote populations. Keeping pressure on the coyote numbers could keep coyote populations suppressed.

We flew fewer hours than in years past we did not use up all of the State OHA Grant and local OHA chapter funding, therefore the balance of funding/hours of flight will be carried over to next year as outlined in section #3 of this grant application. Wildlife Services covered the expenses of the 195.3 hours of ferry time/training and maintenance flight time associated with this project.

The Wildlife Services program also located 49 dens from the air which our ground crews were directed to in order to destroy them. The destruction of coyote dens is very effective in curtailing predation. Each den removed could mean the removal of 2 adults and up to 7 pups. Breeding pairs of coyotes are most often associated with predation on young livestock and game species.

\*There is a two page summary chart for 2008-2009 showing hours flown and coyotes taken, broken down by county included with this grant package.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report (continued)**

3. Summarize how OHA Grant and Grantee funds were spent on this project (indicate any changes from proposed to actual spending activities):

Expenditure Category (i.e. materials, labor, equipment, etc.)	OHA Grant Funds	Other Grantor Funds	Grantee Funds	Total Cost
	*\$25,800 (\$31,000 avail)	**\$27,235	\$162,654	\$215,689

\*Note: There was actually a total of \$31,000 in OHA funds available directly through the OHA State Grant of \$15,000 and \$16,000 from local OHA Chapters. We used \$25,800 of the \$31,000 in total OHA funds (local chapters and State OHA sources) that were available this past year. What OHA funding was not used will be carried over in to next season. Below is a list of OHA funds (State and local OHA Chapter) and associated hours or fractions of hours that this funding will remain available for use by county:

<i>State</i> - Crook \$1,000 ✓ 6.6 hours	✓ Grant \$450 3.0 hours	<i>Grant</i>
<i>Harney</i> - Harney \$2,295 ✓ 15.3 hours	✓ Klamath \$75 0.5 hours	<i>State</i>
<i>Rogue</i> - Lake \$105 ✓ 0.7 hours	✓ N. Malheur \$150 1.0 hour	<i>Josephine</i>
<i>State</i> - Union \$595 ✓ 3.9 hours	✓ Wallowa \$530 3.5 hours	<i>State</i>

There is a total balance of \$5,200 and 34.5 hours of aerial hunting available for next season.

It should be noted that the Portland Chapter of OHA provides funding directly to the Wallowa County Predator District which helps pay for some of the aerial hunting we conduct in that county. This year the Harney County OHA requested that we keep a balance of 15 hours to carry over for next year's work which we honored.

\*\*Note: This year we continued to receive funds (\$3,750) from the Southern Oregon Chapter of the Safari Club International for work in the Beatys Butte Game Management Unit. The Mule Deer Foundation provided \$1,000 for work in the Warner Game Management Unit.

OHA funds were used with other Grantor funds as described in the 2007 Grant proposal in counties identified by OHA with input from ODFW. Grantee funds (USDA-APHIS-Wildlife Services) were used to cover ferry time, flight time associated with training and maintenance, equipment upgrades, administrative costs and salary & benefits of pilots and gunners when they were not conducting aerial hunting missions associated with this project.

4. Describe the educational opportunities provided through this project (if applicable):

This project is an opportunity to educate the legislative and political figures on the importance of sportsmen and ranchers in providing habitat and funding for wildlife management. The project is fostering good relations between the hunting and ranching community resulting in more hunting opportunities.

5. Describe how this project has benefited wildlife and/or wildlife habitat:

The Heppner Game Management Unit covers portions of Gilliam, Wheeler, Morrow, Grant, and Umatilla Counties and ODFW has designated this GMU as one of the 5 counties in their Mule Deer Initiative. This year we took 69 coyotes inside the Heppner Game Management Area and another 195 were taken within 25 miles of this game management unit for a total of 264 coyotes taken in and around the Heppner GMU. The Mule Deer Foundation provided \$1,000 for work in the Warner Game Management Unit because of it being identified as a GMU within the ODFW Mule Deer Initiative.

Many of the game management units where we have field personnel based and we have been aerial hunting using OHA dollars, other sportsmen's dollars, rancher and county funding for the last 5 years contain GMUs with some of the better game populations. I will refer OHA to the ODFW website, under the section containing the minutes for the June ODFW Commission meeting where game population data and trends are available. Here you will find up to date game count data and population trends by Game Management Unit.

when they set the hunting seasons. Here you will find all of the game count data and population trends by Game Management Unit.

Wildlife Services has evaluated the benefit:cost ratio of coyote control to protect game species and has found predation management activities to protect wildlife show benefit:cost ratios ranging from 2:1 to 22:1. Predation management at times is key to game populations reaching management objectives developed by wildlife managers.

Wildlife Services will continue to coordinate with ODFW Biologists to determine where benefits to both game and livestock may be realized when aerial hunting of coyotes is conducted.

6. Describe how the project has benefited you as a landowner (...or conservation group, association, agency, cooperator, educational institution, etc.)

Wildlife Services can use OHA funds and rancher funds to support our very important aerial hunting tool in Eastern Oregon. We can effectively address livestock killing with our aircraft which frees up time of our field people to address other wildlife conflicts. Without the support from OHA we may not be able to maintain two aircraft in Eastern Oregon to control coyotes for the benefit of game and livestock.

7. If a research paper or report was a product of this project, please attach a copy.

8. If photographs were taken of the completed project, please attach copies.

10. Additional comments:

We are available to make a presentation at your Board meetings or local chapter meetings.

Grantee Signature:	<u>David E. Williams</u>	<b>Please return completion report to:</b>
Grantee name and title:	<u>State Director</u>	President
Date:	<u>7/14/09</u>	Oregon Hunters Association
		P.O. Box 1706
		Medford, OR 97501

# FY09 OHA Aerial Hunting

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Total Hours
<b>County</b>													
Crook													0
Deschutes													0
Jefferson													0
Gilliam					3								3
Grant				8.9		3.1							12
Harney			19.1	6	11.5	21.6	9.9	23.2	7.2				98.5
Klamath				8.3	4.9			4.5					17.7 <i>20.6</i>
Lake			3.8	10.3	16.5	7.3	15.3	4	13.3				70.5
North Malheur				4.2	11	6.8	2.5	11	8.2	1.7			45.4
South Malheur				12.4	4	6.7	1.5	1.9	2.5				29
Sherman													0
Morrow				3.3			1.6	2.9	6.4	2.7			16.9
Umatilla		3.2		5.5		13.8	10.6	11.2					44.3
Union				0.5				2.2					2.7
Wallowa				3.3		3.2	2.5	5.7					14.7
Wasco					4	3.5							7.5
Wheeler													0
<b>Total</b>	0	3.2	22.9	62.7	54.9	66	43.9	66.6	37.6	4.4	0	0	<b>362.2</b>

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Total Coyotes
<b>County</b>													
Crook													0
Deschutes													0
Jefferson													0
Gilliam					15								15
Grant				37		23							60
Harney			62	32	56	96	39	68	14				367
Klamath				76	28			32					136 <sup>48</sup>
Lake			30	88	136	26	74	6	29				389
North Malheur				19	56	27	8	33	27	3			173
South Malheur				31	13	21	3	7	5				80
Sherman													0
Morrow				9			1	8	15	8			41
Umatilla		17		38		52	55	44					206
Union				4				12					16
Wallowa				20		38	10	27					95
Wasco					23	20							43
Wheeler													0
<b>Total</b>	0	17	92	354	327	303	190	237	90	11	0	0	1621



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail**

✓ **Project Title:** The Incidental Benefits of Livestock Predation Management for Wildlife Species

1. **Background:** (Describe the wildlife management and or habitat challenge this project will address.)

Locally in Eastern Oregon, ODFW Biologists and sportsmen are concerned over the decline of deer and antelope. Where predation is suspected to be a contributing factor, predation management can be a beneficial wildlife management tool when selectively and strategically applied. Aerial hunting of coyotes can be a very selective coyote removal tool that USDA-APHIS-Wildlife Services can use to address predation.

Predation is a naturally occurring phenomenon. There is abundant evidence that predator and prey numbers fluctuate in healthy ecosystems and that the number of either is unlikely to become so low or so high as to warrant concern (e.g., Errington 1967). However, there are also many instances in which ecosystem health has been negatively affected by weather, fire, human disturbance, removal of top predators, introductions of exotic flora or fauna, etc. In these circumstances, predators may have significant negative impacts on prey (Hecht and Nickerson 1999) and populations of the latter may be driven significantly low to draw attention of managers, and, ultimately, the expenditure of public and private funds. One tool that can be implemented to benefit threatened prey species and to improve the recruitment of younger individuals into the population is predation management.

**Primary and secondary effects of predation-**

In addition to the primary negative effects of predation (i.e., how many of the affected prey species are directly killed by predators) there is a growing body of evidence that points to significant secondary effects of predation (Wehausen 1996, Ripple and Larsen 2000, Ripple et al. 2001, Barber et al. 2004, Preisser et al. 2005). Secondary effects in this context are negative effects to prey populations because of species "displacement" or antipredator behavior in prey (i.e., predators cause adaptive shifts in prey through shifts in behavior or occupied habitats) caused by predators (Morse 1980, Edwards 1983, Risenhoover and Bailey 1985, Lima et al. 1985, Ferguson et al. 1988, Hoban 1990, Lima and Dill 1990, Schmitz et al. 1997, Kie 1999) or the risk from predators (Creel et al. 2005). Secondary predation can be thought of as a trade-off by prey to reduce predation risks, but possibly at the expense of utilizing more favorable foraging or cover habitat, shifting daily activities, reduced reproductive success or other life history requirements (Burk 1982, Lima and Dill 1990, Hecht and Nickerson 1999, Ballard et al. 2001, Preisser et al. 2005). A secondary effect of predation could be the restriction of range utilization by prey species to areas adjacent to escape terrain/cover (Bergerud et al. 1983, Bergerud and Page 1987, Wehausen 1996, Bleich et al. 1997, Bleich et al. 1997, Kunkel and Pletscher 2000, Creel and Winnie 2005, Creel et al. 2005), interspecific competition with other prey species (Gill et al. 2001) and distribution of prey over their range (Messier and Barrette 1985, Molvar and Bowyer 1994). The behavioral response to predation or predation risk may result in reduced nutrient intake and lower offspring survival in prey species which can lead to a population decline or an animal in poor condition which may choose a foraging strategy more risky than an animal that is well fed (Skogland 1991a, Bleich et al. 1997).

In most cases, the assessment of predation impacts is limited to primary impacts. When the potential for secondary predation impacts is considered, it is difficult to assess whether predation or habitat are limiting, since one influences the other.

Habitat can be limiting and habitat management is necessary. Habitat management is a process and not a goal for management agencies. Once habitat is manipulated it progresses towards a climax vegetative community. Wildlife biologists and landowners must commit to habitat management on a continual basis to meet the diverse needs of multiple wildlife species and humans.

Because habitat management is necessary, because predators can affect habitat selection and use and because predation management can benefit habitat projects, it is inappropriate to look at issues as a "habitat v. predators."

Predation management can play a role in assisting species within the confines of existing habitat and habitat management provides habitat for the future.

**Management to improve fawn survival-** Both mule deer (*Odocoileus hemionus*) and pronghorn (*Antilocapra americana*) fawn survival can be increased by management activities that decrease predation by coyotes (e.g., Haily 1979, Knowlton 1976). For the latter, predation of unprotected fawns can approach 90%, although factors such as alternative prey, age structure of the coyote population and synchrony of fawning all play a factor (Dunbar et al. 1999, Byers 1997).

When predation management programs are implemented, pronghorn fawn survival and the recruitment of young individuals into the adult population can increase dramatically. Smith et al. (1986) noted that predation management could result in 100% annual increases in population size. In general, management activities that remove coyotes after breeding territories are established but prior to fawning can double fawning success.

Similarly, mule deer fawn survival can be increased when coyote populations are seasonally suppressed in fawning habitat. In Utah, coyote predation management was applied to deer hunt units where populations were depressed (<50% of herd objectives as specified by the Utah Division of Wildlife Resources), fawn recruitment was low (<50 fawns:100 does) and the population trend was stable to declining (Utah Division of Wildlife Resources 1996). In one such unit, fawn survival increased from 30.75 fawns:100 does to 51:100. In a third, fawn survival increased from 50:100 to 64:100 as a result of coyote management efforts.

**Management to protect endangered species-** Bighorn sheep (*Ovis Canadensis*) are affected by lions throughout their range. In California, lion predation has resulted in the emergency listing of this species, to allow for lion management. Restoration of bighorn sheep in Utah has been limited due by lion predation, and removal of lions is believed to be instrumental to the success of restored populations (Utah Division of Wildlife Resources 1996).

Black-footed ferret (*Mustella nigripes*) populations are severely impacted by coyote predations, especially following restoration efforts (Utah Division of Wildlife Resources 1995). In studies of restoration success in South Dakota, 30 day survival rates averaged 31% in the absence of predation management, but 67.5% with predation management in place. Based upon an introduction of 50 ferrets, the difference in survival with and without predation management and using an average individual value of \$29,132, 18 ferrets would be saved with predation management producing \$524,376 in financial benefit. Perhaps more significant, since nearly all of the ferret survival occurred in the presence of predation management, the success of the entire restoration effort arguably could be said to hinge on the application of this one management tool.

**Management to protect upland birds and nesting waterfowl-** Upland game bird populations may be affected by predation, including the direct predation of chicks and adults as well as nest predation. Again, while predation may be natural phenomena, several species have been shown to be negatively impacted. In one population of sage grouse in Utah, annual adult mortality due to predation (primarily non-native red fox) was 82% without fox control in place while only 33% with fox control (Bunnell and Flinders 1999). Grouse nests are also predated. Ten of 19 (53%) sage grouse nests on Parker Mountain in Utah were destroyed by ravens (T. A. Messmer, pers. Commun.). In an artificial nest predation study in Idaho sage grouse habitat, 28% of nests placed in a predator control area were destroyed while 98% were destroyed in an adjacent no control area (Collinge and Maycock, 2000).

In two study sites in southern Utah, pheasant (*Phasianus colchicus*) populations doubled in treatment (predator control) areas relative to nearby no-treatment areas. In northern Utah, a similar study increased pheasant on areas with good pheasant habitat, but an overall increase was not noted (Frey et al. 2000). The conditional nature of the northern Utah result was attributed to the small size of the study plots involved, and the amount of pheasant habitat available for treatment.

Production by nesting waterfowl also can be improved by predation management. Adult survival during the nesting season also can be improved. Red fox alone are reported to kill 18% of nesting hen mallards in North Dakota annually, and kill an estimated 900,000 adult ducks (predominately hens) each year in the prairie pothole region. In a predator removal demonstration project, nest success in the treatment (predator removal) site was 71% while nest success on the no treatment site was 14%. The difference was compounded by the treatment site containing 166% more nests than the no treatment site, which could indicate that predation management could lead to increased productivity due to nest site selection by duck pairs as well as decreasing actual predation. Numerically, 178 nests successfully hatched on the treatment site, compared to only 21 nests on the no treatment site, an 847% increase in total nest productivity. Cost for treatment was \$2.00/acre, assuming the benefits extended only to the treatment site itself. If the benefit of predator removal extended outside of the treatment area 2 miles, costs dropped to \$0.48/acre (Jones 1994).

#### **Case Studies of Big Game Protection-**

The present discussion focuses on the cost of conventional predation management and the effect applications of these methods have on wildlife numbers. Much of the best available data has been generated in Utah; a series of case studies is presented below. Each of the areas discussed is a big game management unit that was selected by the Utah Division of Wildlife Resources for predation management activity. Selection highlights an important caveat which, although previously stated, is worth reiteration here. Specifically, the timing of predation management, habitat characteristics, game abundance relative to carrying capacity, and a variety of other factors can and do influence game populations. Like any wildlife management tool, managers must select methods carefully so that the critical features limiting recruitment are addressed.

**Henry Mountains mule deer.** Using aerial hunting from fixed and rotary wing aircraft and coyote removals by ground personnel, the cost of fawn protection from coyotes was \$6.96 per sq. mile treated in 1997 and \$8.69 per sq. mile in 1998. Overall, the cumulative cost for two years of fawn protection in this unit was \$15,841. Recruitment was improved substantially; herd size increased by 600 animals, reversing a 5 year decline (Bodenchuk 1999). The civil value assigned to mule deer is \$300. Accordingly, the net benefit for two years work was \$180,000, permitting calculation of a benefit:cost ratio of 11.4:1.

**Bookcliffs mule deer.** - Intensive hunting of coyotes on fawning grounds cost \$11,000 in 1997, or \$66.87 per sq. mile. Recruitment improved substantially, and herd size increased by 667 animals (Bodenchuk 1999). Accordingly, the net benefit was \$200,100. The benefit:cost ratio of this project was 18:1.

**Pahvant mule deer.** - Using aerial hunting and coyote removals by ground personnel, three years of deer fawn protection cost \$27,480 and resulted in an estimated increase of 2,073 fawns worth \$621,900 (Bodenchuk 1999). The benefit:cost ratio of this project was 22.6:1.

**Pronghorn.** - Pronghorn protection has been extensively evaluated, much more so than mule deer, and is nearly always considered to be cost beneficial. For example, Smith et al. (1986) evaluated the benefit:cost of predation management using the cost of pronghorn permits plus estimated hunter expenditures. A management schedule that involved the removal of territorial coyotes every other year yielded the greatest return, a benefit:cost ratio of 1.92:1. Depending on herd size, Smith et al. (1986) argued that benefits in the range of 2:1 and 3:1 could be expected.

Overall, then, the range of benefit:cost ratios for predation management to protect wildlife ranged between 2:1 and 22.6:1. In FY 1998, Wildlife Services programs in the Western Region spent \$2,936,068 (federal and cooperative combined) on this activity. Accordingly, the benefits of Wildlife Services predation management to protect wildlife ranged between \$5,872,136 to \$66,355,137.

## **Incidental Benefits of Predation Management for Livestock Protection to Wildlife**

The example above lead to the conclusion that predation management can be a beneficial wildlife management tool when selectively and strategically applied. Since wildlife in crisis often co-exist with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in the treatment areas. The degree of incidental benefit may depend on the timing and intensity of management efforts. Several case studies follow to illustrate this point.

In Utah, five deer management units received intensive coyote control for domestic sheep grazing on summer range (fawning range for deer). Despite a severe winter loss in 1992-93, these units averaged 74.4% of the Utah Division of Wildlife Resource's deer herd objective in 1995, an average increase in herd size of 6.4% over 1994 numbers. Three other deer management units received intensive coyote control for winter sheep grazing (winter range for the deer herd) and in 1995 averaged 50.3% of objective and were increased by 2.3% over 1994 numbers. Finally, nine deer management units received no predation management efforts by WS during the period. These units averaged 39.7% of objective and were decreased at an average of 1.1% from 1994 numbers.

In Texas, intensive coyote control for sheep and goat protection may be one cause of high deer survival and densities in the Edward's Plateau. Whether these densities are biologically good or bad depends on the degree to which deer management is concurrently applied. Unchecked deer populations overuse available forage and in turn may argue against predation management in certain areas. This final point highlights the fact that predation management can have negative effects on other species of wildlife (Kie et al. 1979).

### **2. Project Objective:**

a. What is the objective of the proposed project?  
Increase hunter opportunity through predator management and greater access to private lands.

b. How will the project benefit wildlife management, habitat improvement, and/or hunters' rights?

There will be a reduction in predation on game species in areas open to hunters. The cost sharing of this project will foster better relations between ranchers and sportsmen. More game and more hunter access will result in increased hunter opportunities in Eastern Oregon.

**Project Location:** (Attach a map and provide narrative description of the project location and how to get there from a major highway.)

Project will take place on public and private land in Eastern Oregon. Wildlife Services can conduct aerial hunting activities wherever livestock are legally present or where ODFW requests our assistance in addressing predation on game animals. Wildlife Services will secure written permission to access lands and will conduct project activities as, mutually agreed upon with OHA.

**Project procedure:** (Specifically describe how the project will be conducted – use separate pages for additional information, drawings or pictures.)

Areas where game species could benefit by reducing coyote predation on young game animals will be identified with input from ODFW District Biologists, federal land and wildlife managers, OHA and USDA-APHIS-WS biologists. OHA funds will be used to support aerial hunting of coyotes and locating coyote dens.

**Permits, Inter-Agency Coordination:** (Have all necessary permits been secured or applied for? Have all inter-agency coordination and approvals been initiated or secured?) USDA-APHIS-WS maintains close coordination with ODFW, ODA, USFS, BLM, USFWS, Indian Tribes and county governments through cooperative agreements and memorandum of understanding and annual coordination meetings.

NEPA requirements have been met to allow WS to work on private and public lands.

USDA-APHIS-WS has authority to shoot coyotes and feral pigs from aircraft.



**PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail (continued)**

**Project Schedule:**

- a. Start Date: November 20087      Completion Date: September 2009
- b. List major project activities and time schedule for each.

Activity	Time (Month/Year)
-Aerial hunting of coyotes removing coyotes and locating dens for removal.	-November 2008 through early July 2009 -When deer move to wintering ground and coyote breeding season through fawning and kidding season.

**Participation:** (What organizations will participate in the project? List and describe the participation, and attach letters of commitment or verification of other grant awards to be involved in this project. You do not need to include individuals.)

Participant	Activity
ODFW	-Identify areas where predator control would benefit wildlife.
OHA State & local Chapters	-Assist in local coordination of aerial hunting.
BLM, USFS, USFWS	-Identify areas on federal lands where project can be carried out.
USDA-APHIS-WS	-Conduct and report on aerial hunting operations and results.
Counties	-Provide funding for ground crews and aerial hunting in areas adjacent to areas where OHA funds are being used.
Private ranchers/landowners	-As many as 115-130 individuals will contribute funding to support aerial hunting in counties where OHA funding will be used.
Safari Club International	-Funding aerial hunting in the western portion of Beaty's Butte Unit (western Harney Co. & eastern Lake Co.).
Mule Deer Foundation	-Funding from the Eastern OR/Western ID Chapter of MDF to support aerial hunting of coyotes in northern Malheur Co.

**Funding:**

- a. List other sources and amount of project funds (include in budget on page 5).
  - Federal funds (\$129,990) to cover salaries and benefits of pilots and gunners, when they are not flying, all of the ferry time expenses and overhead expenses. This allows all non federal funds to be used to support aerial hunting hours flown.
  - Local OHA Chapter funds (\$19,000)
  - Private ranchers/landowners (\$33,660)
  - Safari Club International (\$3,750)
  - Mule Deer Foundation (\$???)
  - County Governments (\$13,500)
  - ODFW (\$ )

- b. Have any conditions been placed on funds listed in "a." above, which may affect the completion of the project? If so, identify and explain.  
No, what ever OHA provides will be used as mutually agreed upon by OHA and WS.

**Project Maintenance and Monitoring:**

- a. Who will maintain the project and fund long-term maintenance and/or operation, if needed?  
USDA-APHIS-WS, contingent on federal, state and county funding.
- b. What element(s) of the project will be monitored, how often, for how long?  
-Aerial hunting activities will be monitored annually for NEPA compliance.  
-Annual reports will be provided to OHA and project updates will be provided as desired by OHA.

**How will OHA be publicly recognized for its contribution to this project?**

When Wildlife Services attends livestock association meetings throughout the year we recognize OHA's support of the aerial hunting program we deliver. Livestock associations recognize the mutual benefits to livestock producers and wildlife when coyote control is jointly funded by ranchers, OHA and other sportsmen's groups. We have also recognized OHA's contribution to the Wildlife Services aerial hunting program at Safari Club International (SCI) meetings, Foundation of North American Wild Sheep (FNAWS) and other sportsmen groups meetings and Association of Oregon County meetings.

The cooperative relationship between OHA and private ranchers in supporting predator management is recognized by the Oregon Legislature's Ways and Means committee. Testimony describing this project during appropriations hearings has been well received by the legislators on the committee.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Project Detail (continued)**

**Project Cost Estimate:**

<u>Category</u>	<u>OHA Funds</u>	<u>Other Funds</u>	<u>Total Cost</u>	<u>Remarks</u>
Administration				
-Training		\$5,082	\$5,082	
-Accounting/Admin		\$3,000	\$3,000	
Construction				
Materials (Itemize)				
Supplies				
-Shotguns		\$2,138	\$2,138	
-Misc. Supplies		\$1,000	\$1,000	
-Cell phones/radio equip		\$7,000	\$7,000	
Contract Services				
-Ammunition		\$9,032	\$9,302	
-Fuel & Oil	\$1,500	\$27,554	\$28,564	
-Regular Maintenance *		\$17,731	\$17,731	
-Travel *				
-Ferry Time *		\$12,663	\$12,663	
-Pilot & gunner *		\$125,471	\$126,409	
-ground crew *		\$13,440	\$13,440	
-Hangar Fees		\$1,000	\$1,000	
*NOTE: Capitol Chapter OHA funds will be used to cover a portion of the expenses for fuel & oil expended during aerial hunting. All ferry time and salaries & benefits for aerial hunting crews when not conducting aerial hunting missions will be covered by federal funds.				
Equipment (Itemize)				
-New engine		\$28,000	\$28,000	
<b>Total Cost</b>	<b>\$1,500</b>	<b>\$253,111</b>	<b>\$254,611</b>	



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report**

Project Name: Incidental Benefits of Livestock Predation Management for Wildlife Species

Location: Eastern Oregon on public and private lands open to hunting

Grantee: USDA-APHIS-Wildlife Services

Address: 6135 NE 80<sup>th</sup>, Suite A-8

Portland, OR 97218

Phone: (503) 326-2346

1. Briefly describe the project objective(s):

Generate cost share funding between OHA, private ranchers and the USDA-APHIS-WS program to support aerial hunting of coyotes in eastern Oregon. OHA funds will help restore some of the aerial hunting hours that Wildlife Services has had to cut due to a reduction in funds from the Oregon Department of Agriculture. Since wildlife in crisis often co-exists with livestock in many areas of the west, predation management for livestock protection may have significant consequences for wildlife species in treatment areas.

2. Describe the project accomplishments (indicate any changes from proposed to actual accomplishments):

In general our accomplishments this year's aerial hunting season (2007-2008), through June of 2008, approximate what we were able to do in the 2006-2007 aerial hunting season. We flew 54 hours less and took 397 fewer coyotes. While our hours and coyotes taken were down some due to a couple variables, in a few counties, our hours and coyotes taken were up significantly. We continue to maintain a veteran crew in our airplane based in Burns, OR. This past year our veteran gunner with our LaGrande, OR based aircraft left our program abruptly in January. This put us in a little bit of a bind, but we called in some veteran gunners from within our ranks and have proceeded to train a new primary gunner for the future. We have also maintained our two Christian Husky aircraft that have superior ferry speed and larger fuel capacity than super cubs we have used in the past. The Husky aircraft have given us better range and ability to respond more quickly to predation events. Our hours of hunting flown through June of this year was 505.9, which is slightly less than what we flew last year. Last year during the same period of time we flew 559.4 hours. Our trend for hours flown over the past 5 years is: 399.3 flown in 2004, 432.5 in 2005, 534.3 in 2006, 559.6 in 2007 and 505.9 in 2008. Because we have invested in a new aircraft engine and a new full time gunner we expect the number of hours for this coming year to exceed the 559.7 flown in 2007. We are committed to increasing the number of hours flown along with our effectiveness. Our coyote take for 2008 through June was 3,256. Recent trends in coyote take: FY 2007 with 3,653, FY 2006 with 3,058 and in FY 2003 1,511 taken. The Wildlife Services program also located many dens from the air. The destruction of coyote dens is very effective in curtailing predation. Each den removed could mean the removal of 2 adults and up to 7 pups.

Due to the grants from OHA at the State and local chapter levels and the additional funding from the other sources noted in this grant proposal we are now far exceeding the level of our FY 2001 coyote take in eastern Oregon with 3,256 taken by aircraft in 2007-2008. FY 2001 was the last year both planes were running full steam with no funding problems. State cuts hit us hard in FY 2002 and greatly reduced our ability to fund our aerial program. The number of coyotes taken this past year (3,256) via the aircraft is the 2<sup>nd</sup> highest over the past 11 years. If the OHA grants continue, I am confident the other sources of funds would also continue, thus enabling us to meet or exceed our coyote take in FY 2006-2007 (3,653).

There is a two page summary chart for 2007-2008 showing hours flown and coyotes taken, broken down by county included with this grant package.

Wildlife Services covered the expenses of the 239.7 hours of ferry time/training and maintenance flight time associated with this project.



**OREGON HUNTERS ASSOCIATION  
PROJECT PROPOSAL AND GRANT APPLICATION  
Grant Project Completion Report (continued)**

3. Summarize how OHA Grant and Grantee funds were spent on this project (indicate any changes from proposed to actual spending activities):

<u>Expenditure Category</u> (i.e. materials, labor, equipment, etc.)	<u>OHA Grant Funds</u>	<u>Other Grantor Funds</u>	<u>Grantee Funds</u>	<u>Total Cost</u>
	*\$30,850 (\$31,000 avail)	**\$44,960 (\$50,910 avail)	\$177,607	\$253,417

\*Note: We collected \$2,000 more from local chapters of OHA than originally projected. There was actually a total of \$31,000 in OHA funds available directly through the OHA State Grant of \$12,000 and \$19,000 from local OHA Chapters. We used \$30,850 of the \$31,000 in total OHA funds (local chapters and State OHA sources) that were available this past year. The Redmond chapter of OHA provided \$1,000 late in the season and we were only able to fly one hour where they wanted us to in Lake County thus the balance of their money remains in a trust fund for use this coming year. All other local and State OHA funds were expended. Also, it should be noted that the Portland Chapter of OHA provides funding directly to the Wallowa County Predator District which helps pay for some of the aerial hunting we conduct in that county. Harney County OHA has continued to maintain a \$10,000 balance in a trust fund with plans to replenish it annually over the next few years.

\*\*Note: This year we used \$44,960 of the total \$50,910 in other grantor funding that was available. These funds included \$3,750 in Safari Club International funds, \$13,500 in county government funds and \$33,660 of rancher money.

OHA funds were used with other Grantor funds as described in the 2007 Grant proposal in counties identified by OHA with input from ODFW. Grantee funds (USDA-APHIS-Wildlife Services) were used to cover ferry time, flight time associated with training and maintenance, equipment upgrades, administrative costs and salary & benefits of pilots and gunners when they were not conducting aerial hunting missions associated with this project.

4. Describe the educational opportunities provided through this project (if applicable):  
This project is an opportunity to educate the legislative and political figures on the importance of sportsmen and ranchers in providing habitat and funding for wildlife management. The project is fostering good relations between the hunting and ranching community resulting in more hunting opportunities.
5. Describe how this project has benefited wildlife and/or wildlife habitat:

A good example of the benefits of aerial hunting to antelope herds is Beaty Butte Unit (West), ODFW Unit #70 and the Warner Unit, ODFW Unit #74 where we have focused OHA and Safari Club International funding to conduct aerial hunting. Based on the ODFW 2006 annual report of Antelope Trend Inventory from the Lake District the number of kids per 100 does in both units was 70, far surpassing other units. We have flown these areas with OHA funds and Safari Club International funds the previous two years. The report also indicated that the Beaty Butte (W) and Warner units have a significantly higher count of antelope per mile with counts of 8.4 and 9.8 antelope per mile respectively. These counts are significantly higher than units we do not aerial hunt.

Wildlife Services has evaluated the benefit:cost ratio of coyote control to protect game species and has found predation management activities to protect wildlife show benefit:cost ratios ranging from 2:1 to 22:1. Predation management at times is key to game populations reaching management objectives developed by wildlife managers.

Wildlife Services will continue to coordinate with ODFW Biologists to determine where benefits to both game and livestock may be realized when aerial hunting of coyotes is conducted.

6. Describe how the project has benefited you as a landowner (...or conservation group, association, agency, cooperator, educational institution, etc.)

Wildlife Services can use OHA funds and rancher funds to support our very important aerial hunting tool in Eastern Oregon. We can effectively address livestock killing with our aircraft which frees up time of our field people to address other wildlife conflicts.

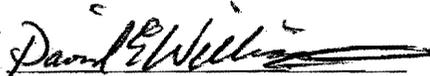
7. If a research paper or report was a product of this project, please attach a copy.

8. If photographs were taken of the completed project, please attach copies.

10. Additional comments:

We are available to make a presentation at your September Board meeting or local chapter meetings.

Grantee Signature:



**Please return completion report to:**  
Capitol Chapter President  
Oregon Hunters Association

Grantee name and title:

State Director

Date:

11/03/08

(b)(6)



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Wildlife  
Services

Oregon State Office  
6135 NE 80<sup>th</sup> Avenue  
Suite A8  
Portland, OR 97218  
TEL 503.326.2346  
FAX 503.326.2367

July 19, 2006

Capitol Chapter of OHA

(b)(6)

Subject: FY 2006-2007 Grant Application

I respectfully request your consideration of my grant proposal to your chapter of OHA in the amount of \$1,000. In the past we have had the financial support of your chapter for the cooperatively funded aerial hunting activities that Wildlife Services delivers in Eastern Oregon. I hope that after reviewing the enclosed application, project completion report for our work in 2005-2006 and my table outlining hours flown, coyotes taken by month this past year you will see how we are increasing the take of coyotes for the mutual benefit of livestock and game species.

Our success would not be possible were it not for the support we receive from OHA and ranchers. The cooperation between sportsmen and livestock producers to fund aerial hunting activities is demonstrating that both parties are important to the health of Oregon's game populations.

Let me know if you need anything else for me. I would be pleased to visit with your chapter to give you an overview of the USDA-APHIS-Wildlife Services program and focus on our aerial hunting activities.

Sincerely,-

David E. Williams  
State Director

Encl:





July 21, 2006

OHA Klamath County Chapter  
PO Box 8161  
Klamath Falls, OR 97602

Subject: OHA Klamath Chapter Funding for Aerial Hunting

I am following up on the OHA Klamath Chapter's intent to provide \$1,000 to support the aerial hunting activities of USDA-APHIS-Wildlife Service during the 2005-2006 season. Prior to the 2005-2006 season your Chapter met with my local field person, Wildlife Specialist Chuck Cleland. During this meeting the indication that the \$1,000 was going to be available was made. From that point on I was not clear what my office needed to do to secure these funds. It was not until I was putting the project completion report together did I realize that we had not received the funds from your chapter. I apologize for not making the request formally in writing in a timely fashion it fell through the cracks and I take responsibility for that.

I hope with this letter requesting the OHA Klamath Chapter funds and the enclosed Cooperative Service Field Agreement we can put in place the necessary paperwork and receive the funds. If you have questions about the meeting where the funding was committed or need help completing the Cooperative Service Field Agreement please contact Wildlife Services Specialist, Chuck Cleland (541) 850-9939.

If the Chapter is still amenable to providing the funds to cover our aerial hunting expenses this season in Klamath County please complete the Cooperative Service Field Agreement and send a check made payable to USDA-APHIS-Wildlife Services to my office.

I apologize for the lateness of this request and any confusion this may cause. I have attached a table of this season's results for your use.

The support we receive from OHA at the State and local chapter levels is crucial to us. We use OHA and rancher funds cooperatively for the mutual benefit of wildlife species and livestock throughout Eastern Oregon. There is a lot of good will being generated between ranchers and sportsmen through this activity. This demonstrates the important roles that sportsmen and ranchers play in healthy game populations.

You may be interested to know that we have also received funding from Safari Club International and the Mule Deer Foundation, \$2,500 and \$850 respectively. We will continue our efforts to involve other sportsmen groups.

Sincerely,

David E. Williams  
State Director





Oregon Hunter's Association  
P.O. Box 1706  
Medford, OR 97501

July 30, 2005

United States  
Department of  
Agriculture

Marketing and  
Regulatory  
Programs

Animal and  
Plant Health  
Inspection  
Service

Wildlife  
Services

Oregon State Office

6135 NE 80<sup>th</sup> Ave.  
Suite A-8  
Portland, OR 97218  
(503) 326-2346

Dear Board of Directors:

Enclosed you will find a proposal to renew the grant Wildlife Services (WS) has received the past 3 years from the Oregon Hunter's Association (OHA). I am requesting \$10,000 from OHA and hope to get additional financial support from local OHA Chapters and other sportsmen groups as we have the past 3 years. These funds will be used to help support our aerial hunting program from November 2005 in to July 2006. This year, we continued to get significant financial support from private ranchers and we have added Safari Club International (SCI) funding. This year we will seek renewal of SCI funding and we have already gained financial support from the Mule Deer Foundation of eastern Oregon and western Idaho. I mention this because I want to give OHA credit for supplying the initial cost share funds that have generated the interest and willingness of ranchers other sportsmen to participate in supporting our aerial hunting activities. This new cooperatively funded program is proving very successful despite it being a radical departure from the traditional program fully funded with federal dollars.

This year we will continue the hourly rate at \$100/hour. Aerial hunting activities will continue to be coordinated with local ODFW Biologists, OHA representatives, other participating sportsmen groups and landowners/managers. It is our hope that we can continue to expand on the success we have had the past 3 years and use an increase in OHA, other sportsmen groups and private rancher/landowner money to benefit livestock, wildlife species and hunter/landowner relationships. OHA money will continue to be used on private and public land to protect livestock and incidentally benefit wildlife or we could specifically fly for game protection and enhancement as described in the grant application.

The application explains how predator management can in certain situations be very effective in enhancing game populations while being cost effective. Aerial hunting is the principal tool that WS uses to address predation management to protect game herds in cooperation with various state and federal agencies. It is a very selective and effective tool that has been documented to help wildlife agencies enhance game populations.

We will be available to present a project completion presentation at your September Board meeting or we can simply print a copy of a presentation for distribution to the OHA Board.

COOPERATIVE SERVICE FIELD AGREEMENT  
between  
Rogue Valley Chapter OHA (Cooperator)  
and  
UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE  
WILDLIFE SERVICES

ARTICLE 1

The purpose of this agreement is to cooperate in a wildlife damage management project as described below:

Participate in aerial hunting activities for the mutual benefit to livestock and game species

EPA Registration No. (If applicable) \_\_\_\_\_

ARTICLE 2

APHIS WS has statutory authority under the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C.426-426b) as amended, and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c), for the Secretary of Agriculture to cooperate with States, individuals, public and private agencies, organizations, and institutions in the control of wild mammals and birds that are reservoirs for zoonotic diseases, or are injurious or a nuisance to, among other things, agriculture, horticulture, forestry, animal husbandry, wildlife, and public health and safety.

ARTICLE 3

APHIS-WS and the Cooperator agree:

1. APHIS-WS will provide the requested wildlife damage management service;
2. The Cooperator will provide the U.S. Department of Agriculture the sum of \$1,500 to cover the costs listed below:

aerial hunting hours @ \$150/hour

3. Payment will be made by check payable to U.S. Department of Agriculture by mutually agreed upon date.
4. The monies received by APHIS-WS will be used for wildlife damage control activities and upon termination of the agreement any unexpended funds will be retained by APHIS-WS and used on similar program activities.
5. The performance of WDM actions by APHIS-WS under this Agreement is contingent upon a determination by APHIS-WS that such actions are in compliance with the National Environmental Policy Act, Endangered Species Act, and any other applicable environmental statutes. APHIS-WS will not make a final decision to conduct requested WDM actions until it has made the determination of such compliance.
6. Nothing in this Agreement shall prevent any other individual or organization from entering into separate Agreements with APHIS-WS for the purpose of controlling wildlife damage.
7. That APHIS-WS has advised the Cooperator that other private sector service providers may be available to provide wildlife management services and notwithstanding these other options, Cooperator requests that APHIS-WS provide wildlife management services as stated under the terms of this Agreement.

ARTICLE 4

This Agreement is contingent upon the passage by Congress of an appropriation from which expenditures may be legally met and shall not obligate the requisitioning agency upon failure of Congress to so appropriate. This Agreement also may be reduced or terminated if Congress only provides the Agency funds for a finite period under a Continuing Resolution.

ARTICLE 5

Pursuant to Section 22, Title 41, United States Code, no member of or delegate to Congress shall be admitted to any share or part of this Agreement or to any benefit to arise there from.

ARTICLE 6

APHIS assumes no liability for any actions or activities conducted under this agreement except to the extent the recourse or remedies are provided by Congress under the Federal Tort Claims Act (28 USC 1346(b), 2401(b), 2671-2680).

All WDM activities will be conducted in accordance with applicable Federal, State, and local laws and regulations.

This Agreement shall become effective \_\_\_\_\_, 20\_\_\_\_, and shall continue through \_\_\_\_\_, 20\_\_\_\_ or until completion of project, not to exceed one year. This agreement may be amended or terminated at any time by mutual agreement of the parties in writing. Further, in the event the Cooperator does not, for any reason, deposit necessary funds, APHIS-WS is relieved of the obligation to provide services under this Agreement.

(b)(6)

(b)(6)

(Required for all restricted use pes)

USDA APHIS, Wildlife Services  
Dave Williams  
6135 NE 80<sup>th</sup>, Suite A-8  
Portland, OR 97218  
503.326.2346

(b)(6)

Cooperator's Signature

Date

Dave Williams 12/22/08  
WS Representative Signature Date

Dave Williams 12/22/08  
State Director's Signature Date

1-15-C