

Benton County Agriculture and Wildlife Protection Program

A Strategic Plan for Protecting Livestock, Crops, and Other Property While Coexisting With Wildlife

RECOMMENDED PLAN

Approve a two-year pilot program that will encourage the proactive use of non-lethal animal damage deterrents to prevent conflicts with wildlife. Develop, implement, promote, monitor, and evaluate a community-based and administered livestock, crop, property and wildlife protection pilot program. The new program will operate concurrently with, and offer a wildlife-friendly alternative to, the existing lethal animal damage control program operated by USDA APHIS Wildlife Services.

Key Elements

- (1) Fund an educational outreach and consultation services program provided by local cooperators such as Chintimini Wildlife Center
- (2) Fund a grant program where livestock producers, crop growers, and other residents could apply for merit-based grants for purchasing non-lethal wildlife deterrents
- (3) Create an Agriculture and Wildlife Protection Program Advisory Committee to administer grant program and advise the county commissioners on related matters

FEATURES OF PROGRAM

- Recognizes the value of livestock, crops, property *and* wildlife in Benton County
- Promotes the proactive use of non-lethal animal damage deterrents to prevent conflicts with wildlife
- Does not replace the current lethal animal damage control program or road kill removal program
- Provides educational outreach and consultation services to citizens experiencing conflicts with wildlife in both rural and urban settings
- Focuses primarily on proactive protection of livestock and fowl in rural areas, but allows *any* ranch, farm, or household to select the appropriate deterrent for *any* type of anticipated conflict
- Uses a merit-based grant program to provide financial assistance for purchasing non-lethal deterrents such as guardian animals, portable electric fencing, beaver pond levelers, and visual and acoustic scare devices
- Establishes a volunteer advisory committee to review grant applications, select recipients, collect year-end reports from grant recipients describing the effectiveness of deterrents used, and produce an annual program evaluation report

JUSTIFICATION FOR PROGRAM

- The lethal animal damage control program operated by USDA Wildlife Services provides no annual report evaluating the effectiveness of the program
- USDA Wildlife Services reacts to, rather than prevents, conflicts with wildlife using traps, snares, and poisons which often kill indiscriminately (kill non-target species and non-offending individuals)
- USDA Wildlife Services does not use proactive, non-lethal methods such as portable electric net fencing, electronic scare devices, and livestock guardian animals to prevent conflicts with wildlife
- Once wildlife learns to exploit an unprotected resource, it is very difficult to prevent it from happening again
- Indiscriminate killing disrupts predator social structures, which can lead to increased conflicts with livestock
- A reactive approach to conflicts with wildlife results in high agricultural and property losses and a high number of wildlife killed
- From 2004-2014, the Benton County lethal control program cost \$174,590 yet residents sustained \$162,406 in agricultural and property losses
- In Benton County from 2004-2014, livestock killed by wildlife included 456 sheep, 393 fowl, and 43 goats
- In response, government agents killed 738 mammals, including 456 coyotes, 50 raccoons, and 46 bobcats using neck snares, steel-jawed leghold, and body-gripping traps
- In Benton County from 2004-2014, government agents killed 2,995 Red-winged and Brewer's Blackbirds using a slow-acting poison highly toxic to non-target birds and aquatic invertebrates
- Long term investment in the purchase of protective measures such as guardian animals and fencing is more cost effective than the ongoing killing of wildlife using traps and snares
- A [similar program](#) in California reduced livestock losses by 62% and program costs by 60%
- Chintimini Wildlife Center provides educational outreach and resolves over 100 conflicts with wildlife in residential and rural settings per year without causing harm to wildlife, yet receives no reimbursement from Benton County for this service
- The proposed program will enhance Benton County's collaborative relationship with non-governmental organizations around common goals

BENEFITS OF PROGRAM

- Less Resource Damage/Loss – more effective animal damage control over the long term using science-based non-lethal deterrents to prevent, rather than react to, resource damage/loss
- Cost-Effective – invests in the purchase of long term protective measures such as guardian animals and fencing rather than ongoing killing of wildlife using traps, snares, and poisons
- Ecosystem Friendly – recognizes the value of native wildlife in maintaining ecosystem services

- More Humane – prevents pain and suffering of wild animals and unprotected livestock
- Increased Safety – reduces concern for safety of pets, children, and other livestock
- Adds Value – fosters the production of valuable wildlife friendly products by local ranchers and farmers
- Choice of Solutions – allows local farms and homeowners to select the appropriate deterrents to prevent wildlife conflicts
- Local Control – empowers county officials and members of the community to set animal damage control policy in Benton County

PROPOSED ACTIVITIES

Year 1: 2017-2018 Fiscal Year

- Fund educational outreach and consultation services agreements with cooperators such as Chintimini Wildlife Center
- Fund a merit-based grant program for purchasing non-lethal deterrents
- Send program announcement memo, grant application form, and educational brochure to farms in Benton County
- Update relevant county and cooperator websites describing the grant program
- Establish a volunteer Agriculture and Wildlife Protection Program Advisory Committee which would meet regularly to :
 - identify and develop educational materials
 - organize occasional educational presentations and workshops
 - coordinate with non-lethal deterrent vendors and consultants
 - review grant applications and select recipients
 - collect year-end reports from grant recipients
 - produce an annual program evaluation report
 - advise county commissioners on other matters related to the program
- Encourage non-profit organizations such as Project Coyote to provide training and workshops on innovative wildlife-human-livestock conflict mitigation
- Request year-end report from USDA Wildlife Services documenting the effectiveness of lethal control methods
- Adjust elements and funding of the pilot program based on year-end evaluation of year-end reports

Year 2: 2018-2019 Fiscal Year

- Renew funding for educational outreach and consultation services agreements
- Renew grant program for purchasing non-lethal deterrents
- Continue collaboration with non-profit organizations such as Project Coyote to provide training and workshops on innovative wildlife-human-livestock conflict mitigation
- Continue, adjust, or terminate pilot program based on evaluation of annual reports

FISCAL PLAN

Breakdown of county funds per fiscal year for the 2017-2019 biennium

- \$7,000 Educational outreach and consultation services
 - provided by cooperators such as Chintimini Wildlife Center
 - brochures, newspaper columns, public presentations, website development
 - phone consultations for wildlife conflict resolution
 - provide vendor contact information and price lists for non-lethal deterrents
- \$20,000 Grant program for purchasing non-lethal deterrents
 - administered by the volunteer Agriculture and Wildlife Protection Program Advisory Committee
 - awarded based on merit of proposed conflict prevention solution on a first-come, first-served basis
- \$27,000 Total annual cost of county Agriculture and Wildlife Protection Program

APPENDIX I - Benton County Animal Damage Control Program Budget 2004-2016

Table 1. Benton County Animal Damage Control Program Budget 2004-2016

Year	General Fund	Road Fund		Total
	Kill Predators	Kill Beaver & Nutria	Remove Road Kill	
2004-05	21,525	–	–	21,525
2005-06	25,000	–	–	25,000
2006-07	25,000	–	–	25,000
2007-08	25,000	–	–	25,000
2008-09	10,000	7,000	–	17,000
2009-10	14,000	7,000	5,000	26,000
2010-11	14,000	7,000	5,000	26,000
2011-12	12,500	7,000	5,000	24,500
2012-13	12,500	7,000	5,000	24,500
2013-14	15,065	7,000	5,000	27,065
Sub-Total	174,590	42,000	25,000	241,590
2014-15	15,065	7,000	5,000	27,065
2015-16	14,933	7,000	5,000	26,933
Total	204,588	56,000	35,000	295,588

Source: Benton County-USDA Wildlife Services Cooperative Service Agreements (Contracts).

APPENDIX II - Estimated Cost of Grant Program

The cost of the grant program will be dependent upon promotional effort, level of participation, and methods of conflict resolution. The estimate of \$20,000 per year is based on 2004-2014 USDA Wildlife Services annual animal damage reports for Benton County (average 48 reports per year), USDA 2012 Census of Agriculture county data, and published values of costs of non-lethal deterrents. The estimate also assumes the following:

- Half of all conflicts (average 24 per year) will require the purchase of a non-lethal deterrent vs. use of the existing lethal control program
- Conflicts are addressed using guardian dogs, portable electric fencing, or scare devices
- Each type of deterrent is used across 4 resource categories according to the following percentages:
 - Livestock (sheep, goats, cattle, horses, llamas) dog (10%), fencing (45%), scare device (45%)
 - Small Animals (fowl, rabbits, pets) dog (0%), fencing (50%), scare device (50%)
 - Plants (trees, shrubs, turf) dog (33%), fencing (33%), scare device (33%)
 - Other Property dog (33%), fencing (33%), scare device (33%)
- Infrequent conflicts with beavers (average 1 per year) involving privately-owned roads, bridges, dikes, dams, and impoundments are addressed using flow devices (pond levelers, etc.)
- Benton County livestock operations are small (Ex. 87 of 127 sheep farms have fewer than 25 sheep)
- Deterrents will last 10 years and initial year costs are substantially higher than average annual costs
- Initial year costs are:
 - Trained Livestock Guardian Dog \$3,100
 - 1000 feet of Portable Electric Net Fencing \$714
 - Electronic Scare Device \$85
 - Beaver Pond Leveler \$1,400

Table 2. Estimated annual cost of non-lethal deterrents for grant program

Resource Category	Damage Agent	Reports of Damage (½ Annual Average)	Cost of Deterrents
Livestock	Carnivores	13.7	9,173
Small Animals	Carnivores	3.5	1,438
Plants	Herbivores	3.6	4,544
Property	Several	2.7	3,506
Roads, Bridges, Dikes, Dams	Beavers	0.5	1,400
Total		24	20,061

Source: 2004-2014 USDA Wildlife Services annual animal damage reports for Benton County and published values of costs of non-lethal deterrents. Includes reports of actual damage and damage threat.

References

Guardian dog (\$2,500 initial training and purchase cost, \$600 annual maintenance cost):

http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1977&context=icwdm_usdanwrc

Portable electric net fencing: https://www.premier1supplies.com/p/goat-sheep-9-42-6-electric-netting?cat_id=53

Beaver pond leveler: <http://www.martinezbeavers.org/wordpress/wp-content/docs/174%20Simon.pdf>

Electronic scare device: <http://www.foxlights.com/>

USDA National Agricultural Statistics Service, 2012 Census of Agriculture – County Data:

https://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_2_County_Level/Oregon/st41_2_013_014.pdf

APPENDIX III - Draft Grant Application Form for Non-Lethal Deterrents



Non-Lethal Deterrents Grant Application

Benton County Agriculture and Wildlife Protection Program

The Benton County Board of Commissioners recently approved a two-year pilot program to encourage the proactive use of non-lethal animal damage deterrents to prevent conflicts with wildlife. The Benton County Agriculture and Wildlife Protection Pilot Program provides funding for a grant program where livestock producers, crop growers, and other residents may submit this application for merit-based grants for purchasing non-lethal wildlife deterrents to protect livestock, crops, and other property while coexisting with wildlife. Grant applications will be accepted starting July 1, 2017. All grant applications will be reviewed by county officials and the Agriculture and Wildlife Protection Program Advisory Committee. Grants will be awarded based on the merit of the proposed conflict prevention solution and funding availability on a first-come, first-served basis. All successful applicants will be asked for their estimation of the effectiveness of their project by July 1, 2018. This information will be used by the Advisory Committee to evaluate the program and help identify effective projects in the future.

Non-selective lethal control methods such as traps, snares, calling-and-shooting, and poisons may not be used by grant recipients. Targeted lethal removal of an offending individual wild animal is permitted under the program but shall be reserved for cases where non-lethal methods do not bring resource damage/loss to a sustainable level, or if a wild animal is caught in the act of damaging resources. Threats to human health and safety involving wildlife should be directed to the Oregon Department of Fish & Wildlife.

Below is a list of recognized non-lethal methods that could qualify livestock producers, crop growers, and other residents for a non-lethal deterrents grant. There are five main categories: Protection Animals, Fencing, Scare Devices, Husbandry and Shepherding, and Flow Devices. Please fill out the following:

- The project will use non-lethal deterrents to prevent or reduce wildlife-caused damage/loss of livestock, crops, or other property and the applicant authorizes county staff or Agriculture and Wildlife Protection Program Advisory Committee members to enter property where damage/loss prevention activities are conducted.**
- The applicant agrees that non-selective lethal control methods such as traps, snares, calling-and-shooting, and poisons will not be used and that targeted lethal removal of an offending individual problem animal shall be used only as a last resort when non-lethal methods do not bring resource damage/loss to a sustainable level, or if a wild animal is caught in the act of damaging resources.**
- The applicant agrees to provide a final report describing the effectiveness of the conflict prevention methods used by the applicant.**

Date: _____

Name: _____

Mailing address: _____

Location address: _____

Telephone: _____ **Fax:** _____ **Email:** _____

Project Description (include why you are interested in using non-lethal deterrents):

I. PROTECTION ANIMALS

Animals used to protect livestock and crops: guardian dogs, llamas, donkeys, etc.

Type of Animal	Name	Id or Markings	Animal Cost	Yearly upkeep (Vet, food, etc.)

Date(s) of implementation: _____

Total costs: _____

Remarks: _____

II. FENCING

New Fencing – electric, woven wire, barb wire, cross fencing, other.

Type of new fencing: _____

Cost of materials: _____

Receipts submitted yes no: _____

Number of linear fence feet: _____

Labor/number of hours to install _____

Date(s) of implementation: _____

Remarks: _____

Existing Fences/Patch Fencing

Type of fencing: _____

Cost of materials: _____

Number of feet improved: _____

Labor/number of hours to improve: _____

Date(s) of implementation: _____

Total costs: _____

Remarks: _____

III. SCARE TACTICS

Horns, lights, radios, bells, noisemakers, behavioral disrupters, etc.

Name/type of scare tactic	Where it's used	Upkeep cost(s)

Date(s) of implementation: _____

Total costs: _____

Remarks: _____

IV. HUSBANDRY AND SHEPHERDING

Rotating pastures, night pastures (bring animals to a protected area), barn/protective-housing improvements, shed lambing, herding/herders.

Describe type of husbandry/shepherding: _____

Number of labor hours on a weekly, monthly, and year: _____

Date(s) of implementation: _____

Total costs: _____

Remarks: _____

V. FLOW DEVICES

Integrated fence and pipe systems (flow devices) such as beaver pond levelers, etc.

Name/type of flow device: _____
Cost of materials: _____
Upkeep Costs: _____
Receipts submitted yes no: _____
Labor/number of hours to install _____
Date(s) of implementation: _____
Total costs: _____

Remarks: _____

PROPOSED BUDGET TOTAL

Grant Funds Requested: _____

ADVISORY COMMITTEE LIABILITY

The Agriculture and Wildlife Protection Program Advisory Committee and Agriculture and Wildlife Protection Program are not responsible for any injuries, taxes, etc. resulting from this grant. The Applicant assumes all liabilities for actions implemented by this grant.

DISCLOSURE AND CONFIDENTIALITY

“I understand that any information provided to the Agriculture and Wildlife Protection Program Advisory Committee or Agriculture and Wildlife Protection Program in this application or other correspondence becomes public information. I waive any right to confidentiality and affirm that the information provided in this application is true and accurate to the best of my knowledge.”

Applicant Signature _____ **Date** _____

Print Name _____

Administrator Signature _____ **Date** _____

Notes/Comments _____

