



empowering the lasting conservation of fish and wildlife and citizen enjoyment of our natural resources

## Grant Application Cover Sheet

Please complete the following coversheet. See the grant application guidelines on our website [www.myowf.org/grants](http://www.myowf.org/grants) to complete your application. Volunteer organizations without nonprofit status must have a tax-exempt fiscal sponsor. You may scan and email this cover sheet and your application.

### About You

- 1 Project Title: Harney SWCD Fence Markers and Escape Ramps for Wildlife
- 2 Organization: Harney Soil and Water Conservation District
- 3 volunteer organizations without nonprofit status, list your fiscal sponsor:
- 4 Tax id number (not required for governmental applicants): 93-0910713
- 5 Project Manager Name: Shannon Brubaker Title: District Manager
- 6 City: Hines Address: P.O. Box 848 Zip Code: 97738
- 7 Phone (office): (541)-573-5010 Phone (mobile): (503)-910-3022 email: dmharneyswcd@gmail.com

Tell us about yourself (brief biographical statement): Shannon Brubaker is the District Manager.

- 8 Bringing a lifetime of hands on agriculture experience plus 18 years working at Oregon Department of Ag to Harney SWCD. She is our staff motivator and board cheerleader, she oversees projects and fiscal responsibility, and cultivates partnerships.

9 Have you applied for a grant from Oregon Wildlife Foundation before? Yes  No

10 If "yes", what was the name of the project?

### About Your Proposed Project

11 What type of project are you proposing? Fish  Wildlife  Other

12 Will it address an Oregon Conservation Strategy habitat or species? Yes  No

If "yes", please name the habitat and/or species addressed: Sage Grouse

13 Proposed start date: January 2021 Anticipated end date: August 2021

14 Project Location (attach map): Harney County Nearest town or city: Various Locations County: Harney County

15 Has a local, state, or federal biologist reviewed this project? Yes  No

If "yes", what is their name? Emily Weidner Phone: (541)-312-6423 email: emily\_weidner@fws.gov

16 If "no", what is your plan for an external review of the project?

17 Estimated project cost: \$259,706.00 Funding you are requesting: \$7,350

18 How will you use the requested funds?

What will you accomplish (ex., stream miles enhanced, acres planted? Decrease fence strikes by birds and mammals. Allow an escape route for birds, mammals and insects within livestock watering troughs.

20 Check the following box to be added to our email distribution list:

### Project Abstract/Summary

21 Limited to 750 characters. Do not begin your narrative here or link to other pages: The Harney Soil and Water Conservation District (SWCD) intends to contract with locally based Crane High School and a local welding shop to manufacture fence markers and trough escape ramps. If funded SWCD will have inventory available to sell to landowners as restoration projects are being developed and will reduce the overall time to complete the projects. The SWCD will then cost share with the landowners a portion of the current manufactured value as an incentive-based



empowering the lasting conservation of fish and wildlife and citizen enjoyment of our natural resources program to ensure the success of the wildlife programs in Harney County. The cost share funds will be reinvested in the inventory of fencing markers and escape ramps, to maintain the program over time.

**Certifications**

- 22  Check here to certify that you have already or will obtain necessary permits from all requisite agencies *as applicable to the proposed project*.
- 23  I have included pre-project pictures or video as well as a picture or video entry of myself.
- 24  I understand that I'm required to submit a Project Completion Report, copies of any publications or social media posts crediting the Foundation's support, and post-project pictures at the completion of my project.
- 25  I warrant that I am the legal owner of all pictures and video submitted in application and grant permission for the Foundation to reproduce, exhibit, or publish them for all general purposes in relation to Oregon Wildlife Foundation's work.
- 26 Signature of Applicant or Authorizing Official: \_\_\_\_\_

A handwritten signature in blue ink, appearing to be "SAB", written over a horizontal line.

## **Project Narrative**

### *1. Describe your Organization and the work that it does.*

Harney SWCD has been actively involved in sage grouse conservation for many years. Harney SWCD and the Candidate Conservation Agreement with Assurances (CCAA) Steering Committee developed their CCAA as a collaborative effort among many agencies and private landowners. The Harney CCAA was signed and finalized in 2014. Since its establishment, the SWCD has been developing landowner agreements to conserve sage grouse habitat on private property. One of our largest accomplishments in sage grouse conservation has been our Focused Investment Partnership project funded by Oregon Watershed Enhancement Board, The Oregon Model to Protect Sage Grouse.

The Oregon Model to Protect Sage-grouse, All Counties (Focused Investment Initiative), focus area is located within Crook, Harney, Lake, and Malheur counties and totals more than 745,401 acres. All acres are located solely within identified sage-grouse Core Area habitat as defined in the ODFW Greater Sage-Grouse Conservation Assessment and Strategy for Oregon. Since 2015, Harney SWCD has accomplished many conservation measures which benefit sage grouse and other sagebrush obligate species. In the first phase of our grant agreement 4,510 acres of juniper treatments were completed, reducing habitat fragmentation and predation. Annual grasses were sprayed for a total of 2,569 acres within our FIP focus area over the two-year period of the grant in an effort to restore sagebrush ecosystems. Livestock watering facilities were retrofitted with wildlife escape ramps, and a minimum of 4 miles of fence was marked with anti-strike markers to reduce hazards to the Greater sage-grouse.

In the second phase of the FIP agreement, Harney SWCD was able to complete 5,051 acres of juniper removal. There were 4 generator powered water pumps converted to solar power, 2 off stream watering facilities were developed, 13 wildlife escape ramps were installed, and 3.6 miles of fence were retrofitted with anti-strike markers. Efforts completed under the Model to Protect Sage Grouse Focused Investment Partnership grants have exceeded our expectations and the benefits to the sage-grouse, the sage-steppe ecosystem and the local economy have been widespread.

A second project that has been successful in the reclamation of sage grouse habitat is our more recent Drewsey Water Quality and Sage Grouse Habitat Restoration Project. The project was spurred by an Oregon Department of Agriculture determination of areas of concern within the watershed. The focus area was identified as a Strategic Implementation Area (SIA) by ODA. The project not only will relieve grazing pressure in the riparian areas, by providing cattle and wildlife watering areas in the uplands, it will also reduce habitat fragmentation and predation through cutting of juniper. The project includes the development of 3 solar pump systems and 1 gravity fed spring development. Juniper will be cleared around one of the springs and will tie in to an old cut to expand sagebrush habitat.

Monitoring is a large part of our efforts and will track effectiveness and success of our conservation efforts. Positive results have already been experienced through the increase of desired vegetation, reduction of annual grasses and the expansion of contiguous sage-grouse habitat.

2. *Identify the need for the proposed project; and outline of it; and the anticipated benefit of completion.*

Animals such as raptors, ducks and grouse may not be able to see a wire fence until it's too late. Collisions are especially likely to occur at dawn or dusk, when light is dim. Collisions not only harm wildlife, but also can lead to higher costs of fence repair, time spent searching for escaped livestock and lead to grazing impacts on sensitive areas such as riparian areas. Building highly visible fences will help animals see them from a distance and navigate more easily. A Utah study concluded that 18% of documented mortalities to sage-grouse were from fence strikes. (Danvir 2002). The overall mortality rate for this population was 53%, making the relative risk of a sage-grouse hitting an unmarked fence at 9.54%. In 2011-2013, Stevens published 3 papers examining the relative risk of hitting fences and identifying key factors present in the habitat that would make a fence "high risk", these factors led to the development of a lek based model taking into account distance from leks, slope, roughness and other factors, Stevens concluded that if high risk fences were marked with anti-strike markers or reflectors it would reduce mortalities by 83%, which would reduce overall fence strike mortality rate down to 1.62%.

Many types of wildlife, such as bats, neotropical birds, deer, elk, pronghorn, rodents, rabbits, squirrels and insects, use livestock troughs for drinking water. Unfortunately, these species often find themselves unable to escape when they fall in while attempting to drink or bathe. The use of wildlife escape ramps benefits wildlife and livestock by maintaining clean water. Wildlife and livestock with consistent access to clean drinking water have been shown to be healthier and gain more weight. Some frequently used escape features can be tragically ineffective. Floating sticks, logs or planks often are placed in tanks to provide a life raft for wildlife. Unfortunately, these structures are unstable and slippery, and animals that manage to climb onto floating debris may still become stranded in the center of the trough. Piles of loose rocks are another common solution, but these structures are unstable and decrease water storage capacity. Bumping by livestock or freeze-thaw patterns in the winter can shift the rocks and cause them to fall over. An effective escape ramp should touch the edge of the trough and be strongly secured so it will not collapse or come loose. All ramps purchased by the SWCD will be manufactured to NRCS specification for each water trough design features ([https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_041023.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_041023.pdf))

Between 2016-2019 SWCD and partners have installed a total of 15.8 miles of fence markers within "high-risk" collision areas and 64 escape ramps within cattle troughs. During 2020 field season 3 projects were incomplete because of missing escape ramps within the troughs and one fence marking project due to waiting for markers.

The SWCD proposes to purchase 14,750 white and black fence markers at \$0.24 per unit, totaling \$5,040. The SWCD will also purchase 3 types of escape ramps for 3 different types of troughs. Small ramps (square troughs), 12 ft. tire trough ramps and 13 ft. tire trough ramps. Small ramps are \$30 per ramp, 12 f.t are \$67 and 13 ft. are \$80. We will purchase 20 smalls, 30 12ft, and 15 13ft ramps for the price of \$3,810. Total overall budget request is \$8,850.

The program priority focus is sage grouse conservation, however just by nature of placement of fence markers and escape ramps will benefit multiple other species. Some species identified are: bats, neotropical birds, deer, elk, pronghorn, rodents, rabbits, squirrels and insects.

*3. Quantify your Outcomes (i.e., acres planted, stream miles enhanced, etc.)*

Baseline (what we know): It has been identified through field surveys that a missing component of conservation measures as a piece of the Candidate Conservation Assurance Agreement that Fence marking for Sage Grouse Collision and escape ramps in troughs is an area left slowing the completion of projects or forgotten.

Goal: HSWCD Intends to work with each landowner involved in SG and Wildlife programs within the Harney County area to have designated markers and trough ramps in place in all properties to protect species of concern.

Target: 100% participation in the program

Metrics: The system we use to measure the participation in this program currently is the Candidate Conservation Assurance Agreement data collection system. We will work with partner programs such as NRCS and other partner agency to assure the success of data collection while this program is in place.

Success: The SWCD will measure the success of the program by how many of the fence markers and/or the escape ramps are installed on a yearly basis. Success can be measured by the amount of inventory the SWCD maintains through time on a year-to-year basis. Success can also be measured based on the fence collision risk in each area where the fence markers are installed. When we are developing sage grouse plans on private properties, we use the fence collision risk model to identify where it is important to install anti-strike markers. The Foundation would purchase enough fence markers to cover 8.4 miles of fence. Trough ramps are placed in all troughs on a property and will benefit multiple species. A total of 65 ramps will be available to be installed in troughs with the Foundation funding.

*4. Identify who or what entity will manage or operate the project once it's completed.*

There will be two entities managing and operating the project once the funding is completed. Both the landowners who receive the materials and SWCD managing the inventory of ramps and fence markers. Landowners will provide continuous monitoring of the markers or ramps during the duration of there use. The SWCD will receive payment of 75% of the value for the markers and ramps and work with the Crane School or local welding shop to restock the

inventory used. It is anticipated that demand for fence markers and escape ramps will decrease over time as the SWCD sage grouse program matures.

*5. Describe how the Foundation will be recognized for its funding support.*

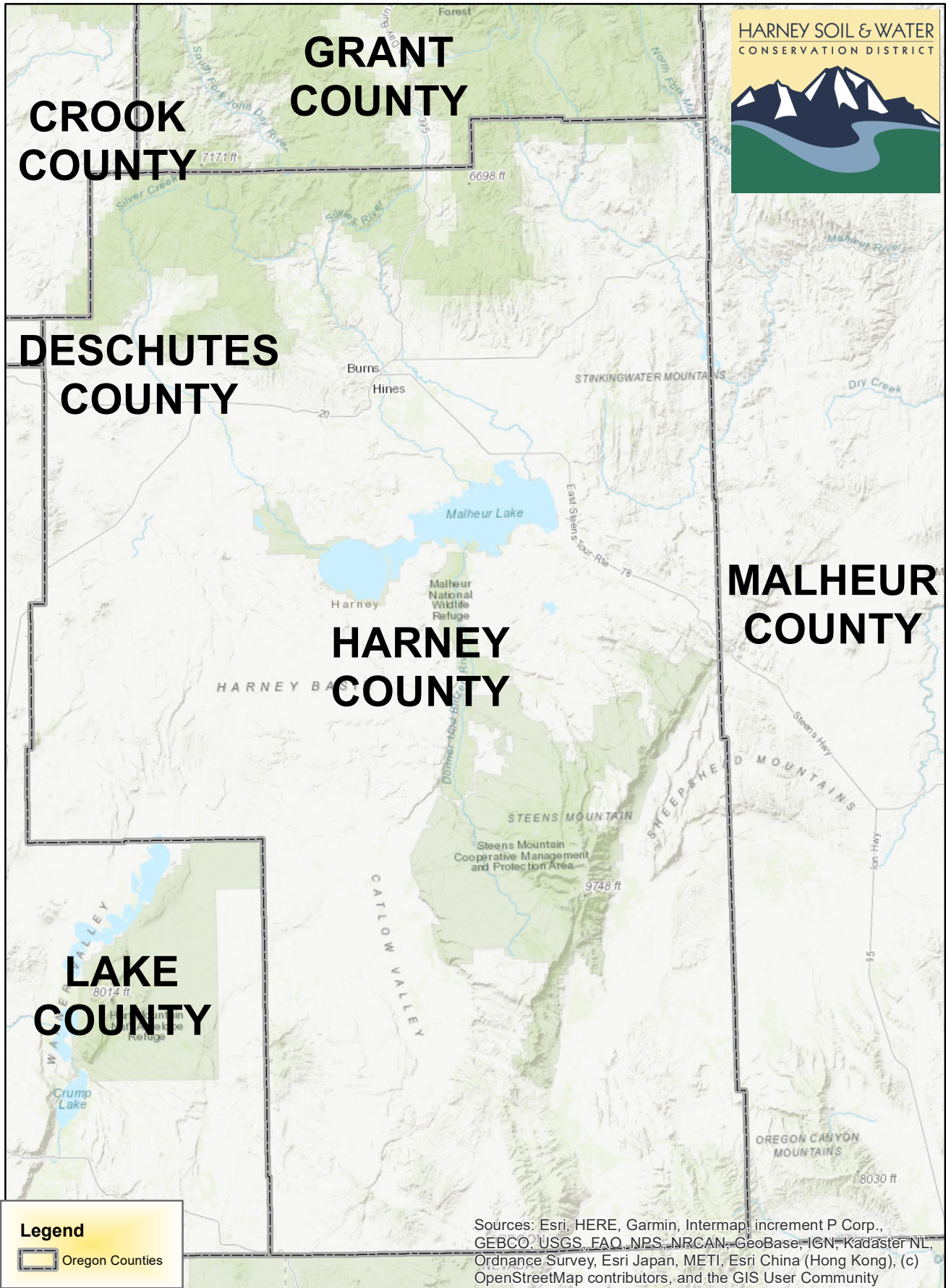
The SWCD plans to announce, if successful, that we have received funding from the Foundation on our social media platforms. It will also be announced in the SWCD Board meeting, which is a public meeting held monthly. The SWCD will also inform all landowners receiving the materials that because of the grant funding, we are able to offer the products at a reduced rate and it thanks to the Foundations funding.



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# Trough Ramps and Fence Marker Map



Created by: Jason Kesling

Date: 1/6/2021