

Animal Enhancement Activity – ANM60 – Grouse friendly fencing



Enhancement Description

This enhancement involves the retrofit of existing fences to increase visibility and prevent grouse from collision and mortality. Selection of this enhancement requires all fences that are a high or medium risk to grouse be marked. Selection of this enhancement requires the activity to be planned concurrently on all eligible land use acres.

Land Use Applicability

Cropland, Pastureland, Rangeland, Forestland

Benefits

Fencing used to define property boundaries and contain livestock creates a significant risk to grouse. Striking fences in flight can kill or cause fatal injury. This is especially important during the breeding season as grouse fly into their breeding grounds, or “leks”. The dim pre-dawn light, when these flights occur, make it difficult for the birds to see and quickly avoid fence wires. Recent studies have shown that marking fences with durable vinyl markers significantly reduces grouse collisions with fences. Fence collisions can be widespread, and a proven fence-marking method is now available to reduce strikes by up to 83 percent. Terrain ruggedness and distance from the lek are primary factors associated with fence collision risk across the landscape. Markers have been shown to reduce collisions by six-fold over unmarked fences.

Science also suggests that collisions are highly variable, so practitioners implementing the NRCS Sage Grouse Initiative (SGI) desired a targeting tool to prioritize their fence-marking efforts in areas of highest strike risk. The Conservation Effects Assessment Project (CEAP) responded by supporting development of a spatial targeting tool for practitioners that used a dataset from a rigorous study in Idaho to fit collision-risk models to all known sage-grouse lekking areas in 10 western states. The resulting product maps relative collision risk as a function of terrain ruggedness and distance to nearest lek, providing practitioners with a simple decision-support tool for use in geographic information systems (GIS). Findings indicate that only a small proportion of the landscape (6 to 14 percent) is predicted to pose a relatively high collision risk.

Conditions Where Enhancement Applies

This enhancement applies to crop, pasture, range or forest land uses that have existing fencing in need of a retrofit.

Criteria

1. Determine which fences are a high or medium risk to grouse. Your local NRCS Field Office will assist in this determination for sage grouse using information contained in:



- http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1049415.pdf. For prairie chickens, mark all fences within ¼ mile of a lek.
2. Increase visibility of ALL identified fences using vinyl markers, PVC pipe or other similar materials.
 - a. Install the fencing markers according to NRCS state standards for spacing, interval and size.
 3. If no state criteria exist, follow criteria in the Montana Fish, Wildlife & Parks publication: http://www.montanans4wildlife.org/pdfs/MT%20Fence%20Guide_FINAL%20REVISED.pdf

Adoption Requirements

This enhancement is considered adopted when 100 percent of the identified fences that pose a risk to grouse on the operation have been marked.

Documentation Requirements

1. Identify type(s) of marking used
2. Location on a map showing where wildlife friendly fence is located

References

CEAP Insight. Nov 2012. Applying the sage-grouse fence collision risk tool to reduce bird strikes. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1049415.pdf

Paige, C. 2008. A Landowner's Guide to Wildlife Friendly Fences. Landowner/Wildlife Resource Program, Montana Fish, Wildlife and Parks, Helena, MT. pp 44. <http://fwpiis.mt.gov/content/getItem.aspx?id=34461>.

Sage Grouse Initiative. 2014. Marking high-risk fences saves sage grouse. Science to Solutions Series Number 1. Sage Grouse Initiative. 4pp. <http://www.sagegrouseinitiative.com/>

Stevens B.S. Naugle, D.E. Dennis, B. Connelly, J.W. Griffiths, T.V. Reese, K.P. 2013. Mapping sage-grouse fence-collision risk, spatially explicit models for targeting conservation implementation. Wildlife Society Bulletin 37:409-415.

NRCS, FWS. 2010. Conference Report for sage grouse. [http://efotg.sc.egov.usda.gov/references/public/UT/SG_Conference_Report_Final\(508Compliant\).pdf](http://efotg.sc.egov.usda.gov/references/public/UT/SG_Conference_Report_Final(508Compliant).pdf)

Wolfe D.H. M.A. Patten, and S.K. Sherrod. 2009. Reducing grouse collision mortality by marking fences (Oklahoma). Ecological Restoration 27:141-143.