

Wildlife Friendly Fence Project on Craters of the Moon National Monument and Preserve 2009-2017: Final Report

Todd C Stefanic 2017

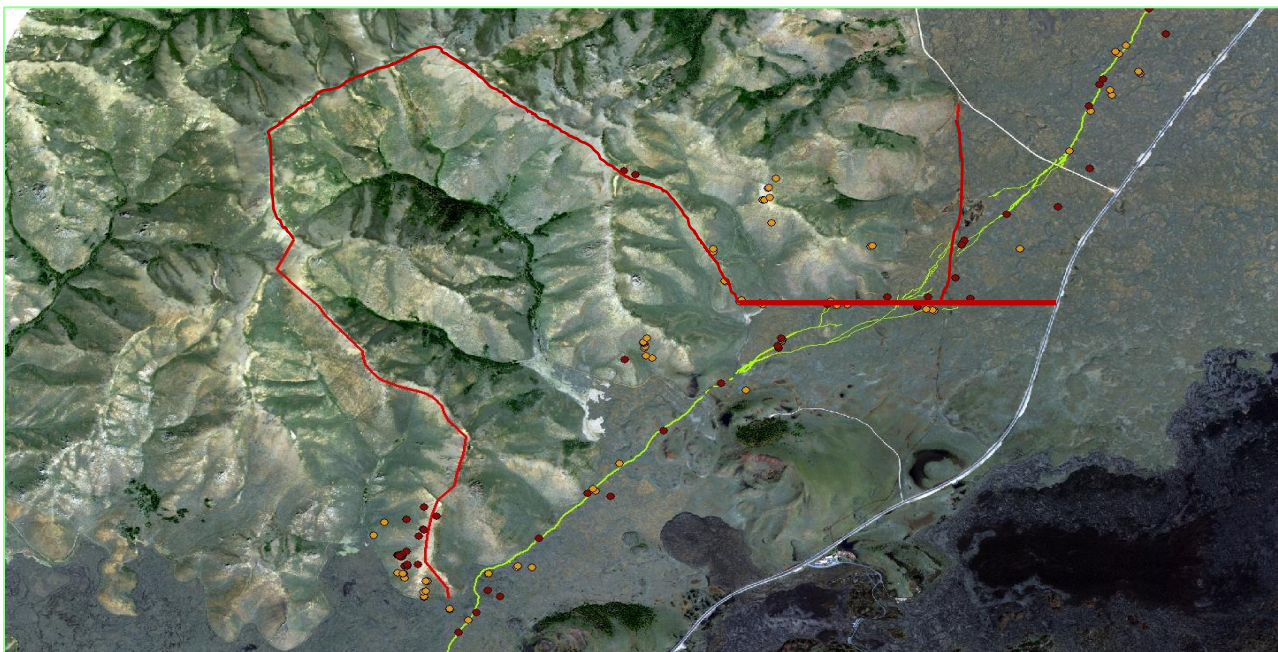


A Utah Conservation Corps crew has a great view of CRMO from the ridgetop as they break for lunch.

In a recent (2008-2010) study of pronghorn movements using GPS collars, The Lava Lake Institute with partners at the Wildlife Conservation Society, Idaho Department of Fish and Game and the Pioneers Alliance uncovered a previously unknown migration route through Craters of the Moon National Monument and Preserve (CRMO). This migration route goes through the north end of CRMO across ~8 miles of rugged lava (Figure 1).

The study revealed a unique annual migration: an east-west trek of approximately 100 miles (one way) from their summer range to winter range. Pronghorn from the summer range north of Carey in the Pioneer Mountains make this trek and join other herds of pronghorn on the winter range. These herds come from the nearby Little Lost River, Birch Creek, and Crooked Creek valleys, but travel an average of 33 km (20 miles) between winter and summer ranges (Hoskinson and Tester 1980). The Lava Lake study also indicated a constriction of the migration route at a point that has become known as “Pronghorn Pass” in the north end of CRMO.

After the discovery of this migration route John Apel (CRMO Chief of Resource Mgt. 1997-2015) began to explore the implications of this migration route to CRMO. Apel discovered that not only did the Pronghorn move through the north end of CRMO but they appeared to move through on a single trail. He began to use trail cameras on this trail at a place he called Pronghorn Pass to record their numbers and the timing of their movements. He also became aware that CRMO boundary fences (Figure 2) posed a barrier to their migration and to wildlife movements in general. These fences were a mixed bag of woven wire (sheep fence) and barbwire. Even the barbwire was a barrier as it was often 5-6 strands with the bottom wire very close to the ground. This made it impossible for pronghorn to slip under and difficult for other animals to jump over.



Apel started a project to address the wildlife passage / fence issue. He formed an agreement with the Utah Conservation Corps (UCC) and work began in 2009 to remove and/or replace over 8 miles of boundary fence with a wildlife friendly design. Access to much of the fence required long hikes (up to 1 mile) up steep slopes (elevation gain up to 1,000 ft.) while carrying heavy packs, tools and supplies. In addition, lava and rocky ridgetops made building fence very difficult. Working between 8-11 weeks a summer Utah Conservation Corp crews could complete about a mile of fence per year (Figure 3).

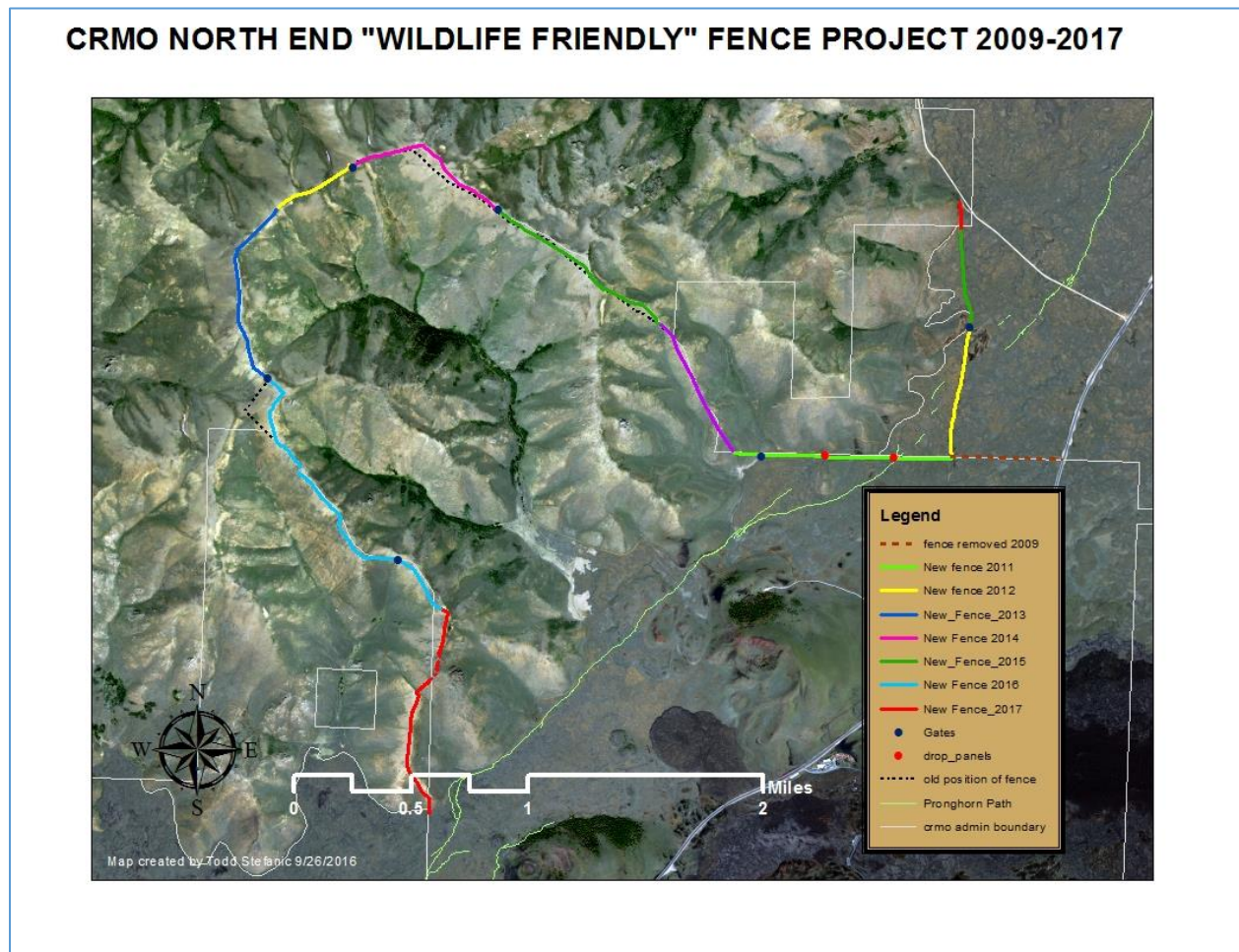


Figure 3. Map showing sections of fence completed by year, position of gates and drop panels.

The last sections of fence were replaced in 2017, bringing the total miles of fence addressed to 8.2. One section of fence (~.5 miles) was removed entirely because it was no longer needed to prevent cattle trespass (Figure 3). Since Monument expansion (2000), this fence only delineated the line between where hunting was and was not allowed. The rest of the fence had to be replaced to keep cattle from adjacent BLM allotments and private land out of CRMO. Some adjacent allotments had formerly grazed sheep (J. Apel personal communication) but those allotments now only graze cattle so all the sheep fence (woven wire) could be removed. Much of this fence line was very old and built without the aid of GPS. As such, it was often not on the NPS boundary. When possible (and where the alignment was most egregious) the new fence was moved to the correct boundary. Although, sometimes conditions were so rocky that the decision was made to not try to move the fence if existing T-posts could be re-used in

place. Apel chose a design from *A Landowners Guide to Wildlife Friendly Fences: How to Build Fence with Wildlife in Mind* (Paige 2008) (Figure 4).

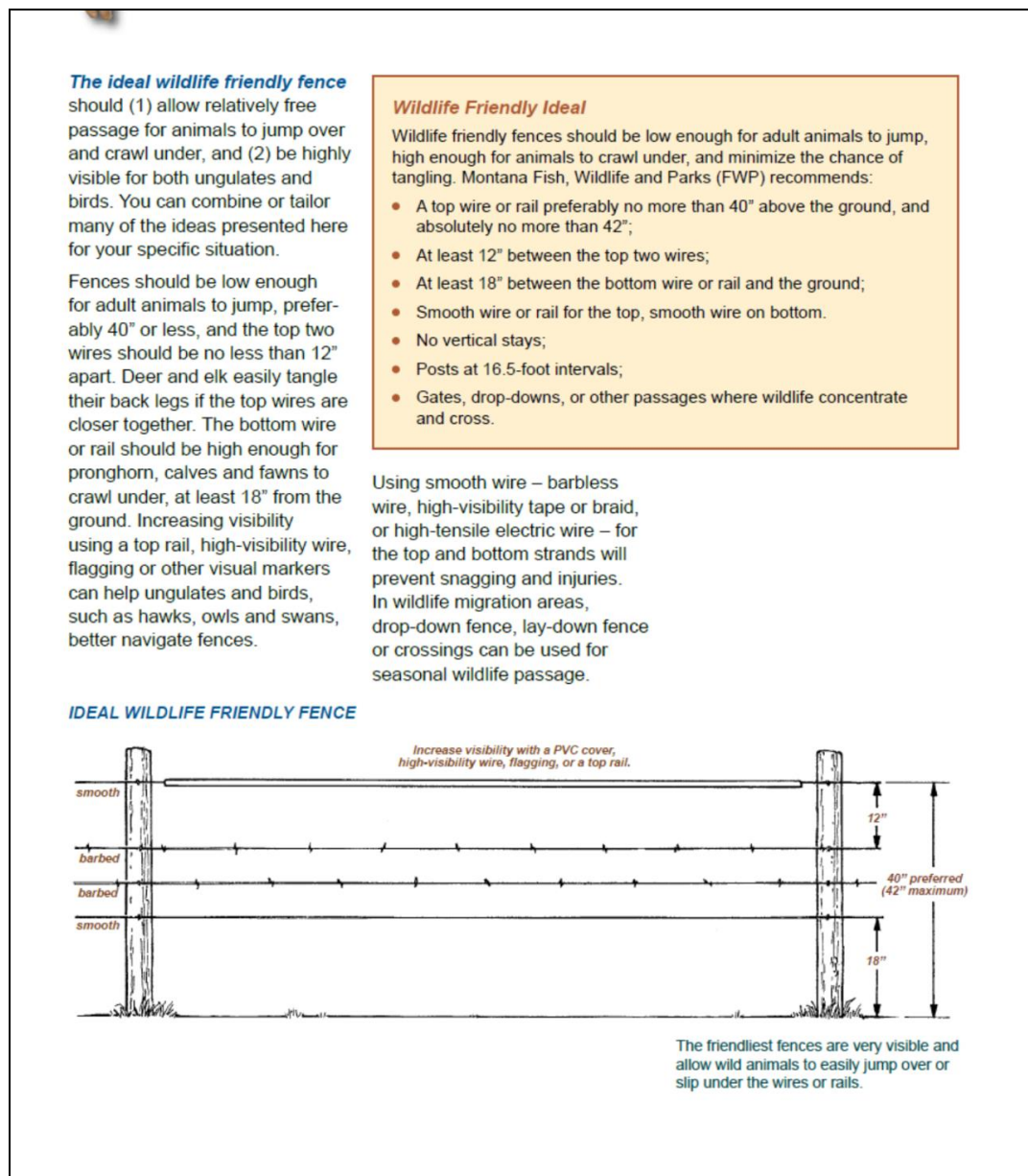


Figure 4. Page 8 from *A Landowners Guide to Wildlife Friendly Fences: How to Build Fence with Wildlife in Mind* (Paige 2008).

This fence design was modified slightly by using smaller fence markers (white vinyl siding trim cut into ~3" strips and covered with chrome reflective tape) (Figure 6). It took some experimentation to find a fence marking system that would work. Originally, Fence Flags (Figure 5) were used but it was found that the wind blew them to the nearest T-post or they slid down the wire if the fence was on a slope. Moving them to the barbwire also proved ineffective because the cattle chewed on them and pulled



Figure 5. Fence Flag



Christine Paige



Christine Paige

Figure 6. Vinyl siding fence marker.

them off. Eventually the vinyl siding trim put on the top-most barbwire was found to be the only way to keep them from moving along the wire. Chrome reflective tape was added to the markers to increase visibility to sage grouse and other animals. Left white, the markers would just blend into the background

whenever snow was on the ground. In the initial year (2011) of new fence construction the UCC used Pulaskis to grub the sage brush out of the way before constructing new fence. This lead to the infestation of cheat grass along the fence line. In later years when necessary sage brush was just clipped with loppers and then fence was built to lessen the ground disturbance. In 2011 the fence line construction included two drop panels which were built in two spots where it appeared game trails intersected the fence (Figure 7).

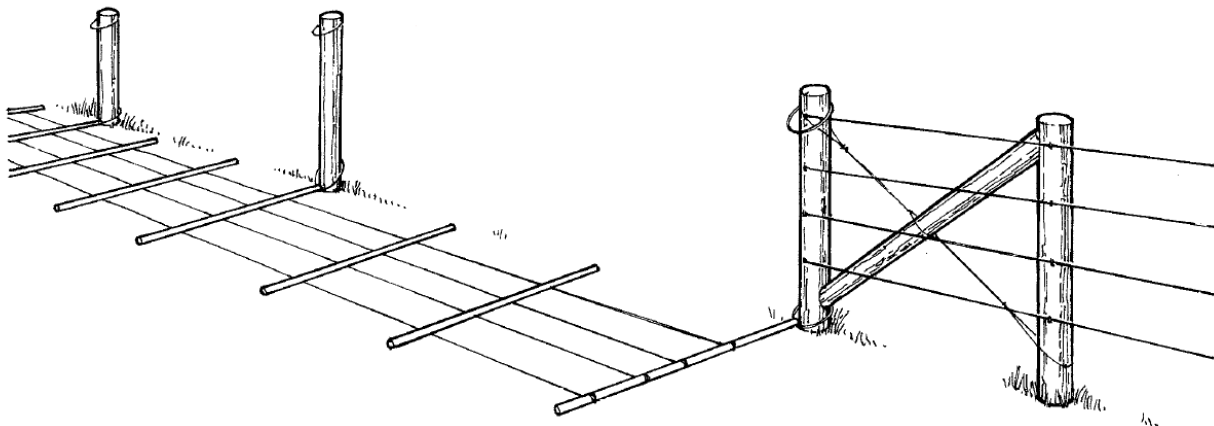


Figure 7. Example of a drop panel, from *A Landowners Guide to Wildlife Friendly Fences: How to Build Fence with Wildlife in Mind* (Paige 2008).

Trail Cameras placed to view the openings created by the drop panels in 2013 confirmed that pronghorn use the western drop panel in large numbers. The eastern drop panel was seldom used. Drop panels

have proved to be difficult to maintain. Gates closers were placed on the drop panels in 2016 to try to keep them tight when they are in place. Another issue with the drop panels is timing with adjacent allotment cattle grazing. The adjacent allotment permittee does not communicate cattle turn in and turn out dates to CRMO so knowing when you can take the panels down and need to put them up is difficult. It has resulted in cattle crossing through the open drop panels to the wrong side of the fence and to the drop panels being closed during part of pronghorn migration.

Once work began on the upper elevation ridge top sections of fence pack horses and/or mules were contracted to haul supplies up to the ridge tops and to haul trash down. When contractors proved to be unreliable, the project switched to the use of helicopters through an inter-agency agreement with the Forest Service. The agreement is written for 5 years (2016-2021) which will give us three more years (from the writing of this report) to bring the old fence debris down.

In 2015 the project was expanded to address recently discovered wildlife passage issues at the CRMO /BLM east boundary on the north side of HWY 20/26/93. This fence is also directly across the path of the pronghorn migration where the single trail begins to braid as pronghorn leave NPS land (Figure 8).

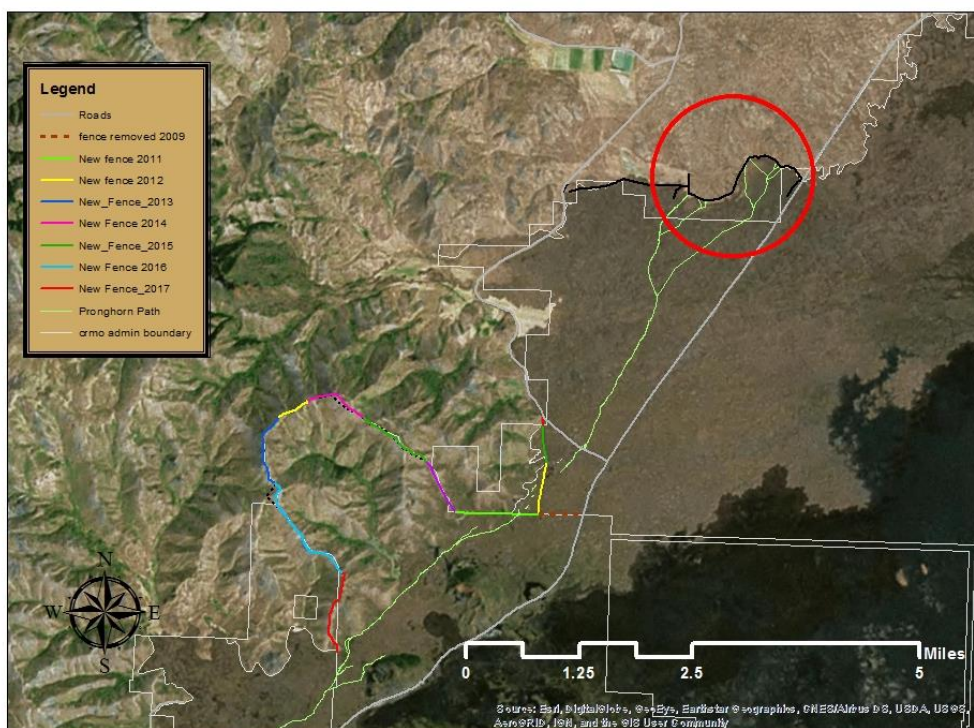


Figure 8. Red circle shows location of fence which was added to the project scope when additional wildlife passage issues were discovered.

The fence at this location (milepost 235.7) had been recently replaced by the BLM (with a wildlife friendlier design), however the old fence had not been removed. In fact, in places the old fence was right alongside the new or even leaning against the new fence making wildlife passage very difficult (Figures 8-9). The new fence uses a 3-strand design with a smooth bottom wire but the bottom wire is at about 15" above ground.

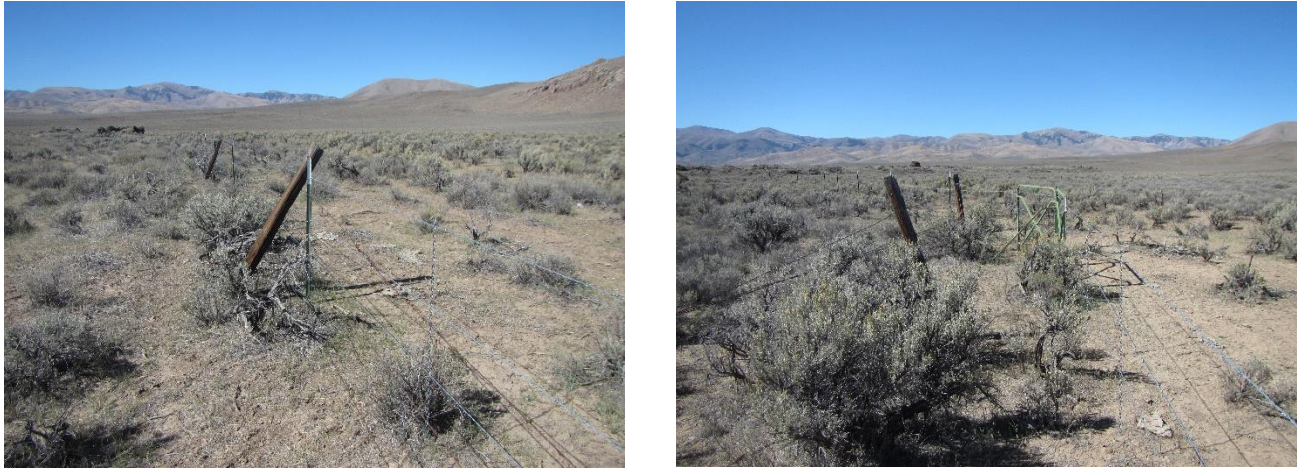


Figure 8-9. NPS / BLM east boundary fence wildlife passage issues.

References

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