

FY16 Restoration and Resource Protection Projects on the Coconino National Forest



In fiscal year 2016, the Coconino National Forest physically blocked, signed, and or revegetated a number of areas with system or non-system roads to decrease impacts to forest resources and forest users. While there are many areas across the Forest that could benefit from road rehabilitation or additional steps to manage motor vehicle use, the Forest has limited resources and must prioritize these efforts to focus on the protection of watersheds, wildlife habitat, and to address unauthorized use adjacent to communities.

9845N Route closure and closure of non-system routes

Date: 4/23/2016

District: Red Rock Ranger District

Resource Protection objectives: watershed, water quality, protection of riparian vegetation, reduce disturbance/impacts to wildlife

Partners: AZCC

Explanation/reason for closure: This project includes physical closure of the 9845N road including a surrounding system of interconnected non-system roads to reduce watershed impacts to the adjacent Oak Creek. There are over 2 miles of non-maintained road along Oak Creek, which are accessed by 9845N. Given the close proximity to Oak Creek, its hydrological connectivity to the stream, and the establishment of new roads in this area, it is likely that limiting motor vehicle use on these routes reduces sediment from upland erosion and stream turbidity. Stream turbidity has been shown to foster increased levels of e. coli bacteria, for which Oak Creek has been listed as exceeding state water quality standards. Thus, this effort is expected to support watershed goals in the high priority watershed of Oak Creek to meet state water quality standards.

Non-system roads were first blocked off by the use of boulders along the system 9845N route. The 9845N route is a non-designated road that was blocked with a gate with a pass through to allow hiking and equestrian access but prevent motor vehicle access. Approximately 6.5 acres of existing non-system roads that were blocked were rehabilitated with native seed and weed free mulch. Signage was also installed at key access points.

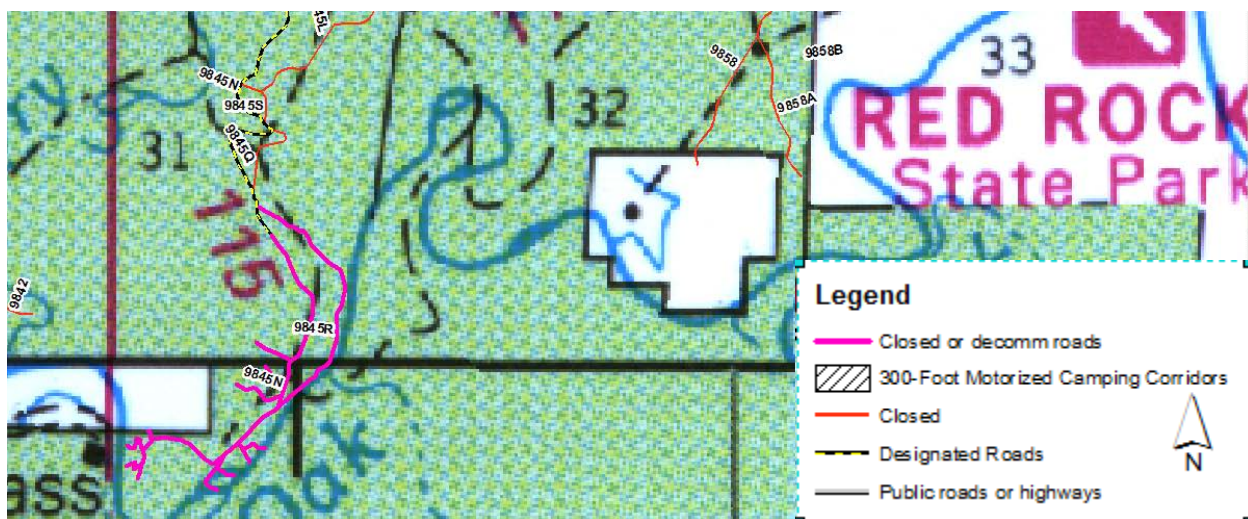


Figure 1. Map illustrating existing route system and roads physically blocked along Oak Creek to protect watershed and riparian resources.



Figure 2. Gate and pass through installation with signage informing appropriate uses of the 9845N route



Figure 3. Gate installation included installation of a foot-travel and equestrian pass through, as well as erosion control features to restore gullies in the road.



Figure 4. Areas along 9845N were seeded and mulched to restore vegetation in areas that had been damaged from motor vehicle use

Dry Lake Protection along Woody Mountain Road

Date: August 2016

District: Flagstaff Ranger District

Resource Protection objectives: Mexican spotted owl habitat protection, elk habitat protection, steep slope protection and erosion reduction, management of invasive species

Explanation/reason for closure: The Flagstaff Ranger District, based on requests by an Arizona Game and Fish employee, installed a gate and log pole fence along Woody Mountain Road (Forest Road 231) to prevent unauthorized motor vehicle access on three non-designated closed roads, and on a recently established system of unauthorized OHV trails that occur on the very steep slopes of a dry caldera landscape feature. The unauthorized OHV routes have been recently established and go through a number of sensitive areas including a Mexican spotted owl Protected Activity Center, an area infested by leafy spurge, and very steep slopes on erosive soils. The log pole fence and gate are expected to decrease the ability of motorized unauthorized use in these sensitive areas. In January 2017, the Forest received feedback from a state wildlife manager that, "...the area looked much better, and there was evidence that it was beginning to heal. I believe that this was a major success story, and thanks so much for seeing that the project was completed!!!"

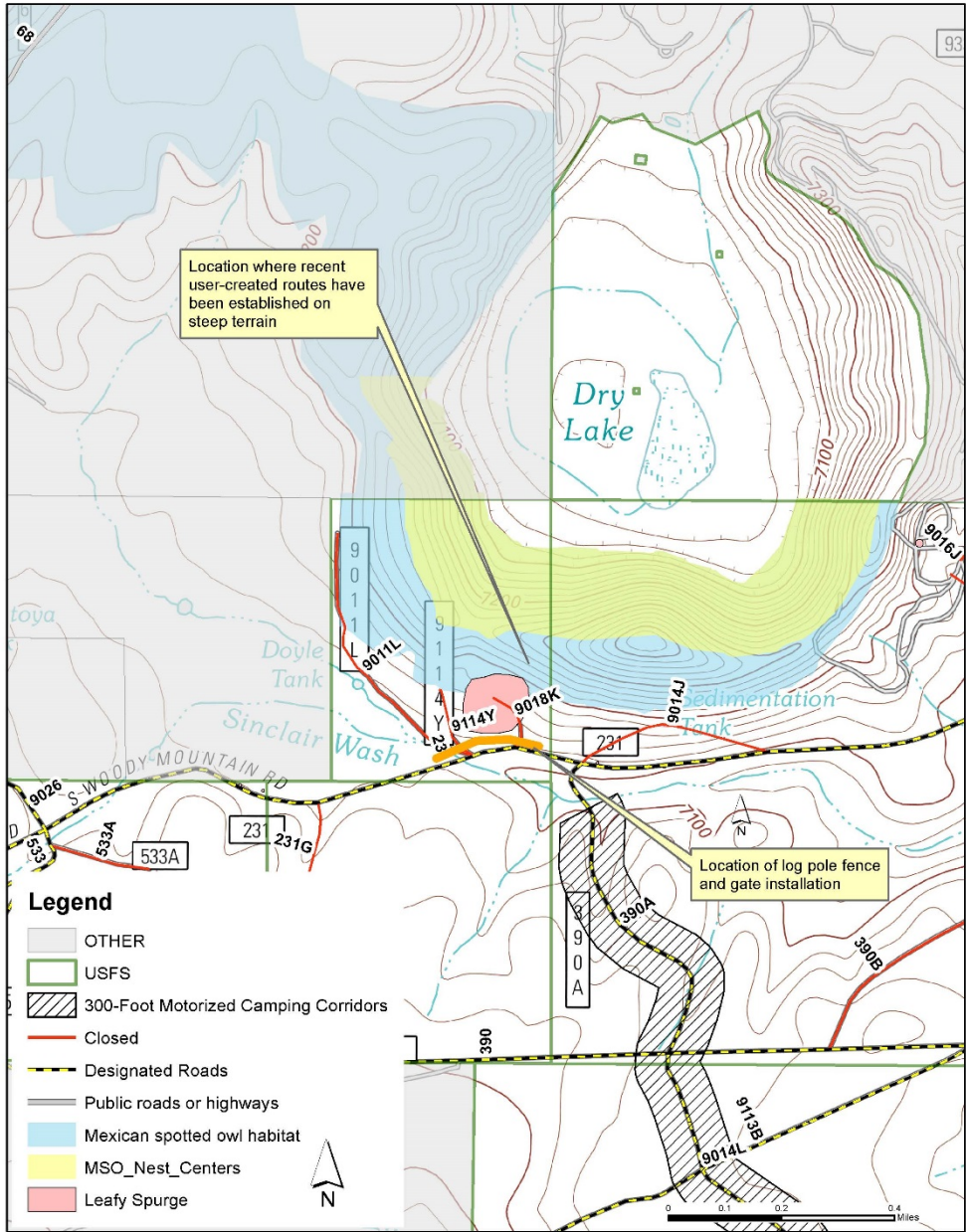


Figure 5. Road closure efforts to reduce unauthorized motor vehicle use in sensitive habitat



Figure 6. Log pole fence and signage blocking unauthorized motor vehicle use on the 9018K and adjacent area.



Figure 7. View from the rim of the caldera showing desirable elk habitat and aspen

Holder Cabin Meadow Restoration

Date: August 2016

District: Mogollon Rim Ranger District

Partners: AZ Elk Society, Boy Scouts, AZGFD

Resource Protection objectives: Meadow protection, watershed and water quality protection

Explanation/reason for closure: The Mogollon Rim Ranger District constructed a log pole fence along designated Forest road 9714G to reduce unauthorized motor vehicle use in a meadow surrounding Holder Cabin. This is an effort to contribute to restoration based activities that have been implemented at this location for the past seven years to restore the meadow habitat at this location. According to Arizona Game and Fish Department Wildlife Manager, Garrett Fabian, "Hard to believe that meadow had an illegal quad race track through it and was a barren dirt patch a decade ago. Looks awesome."

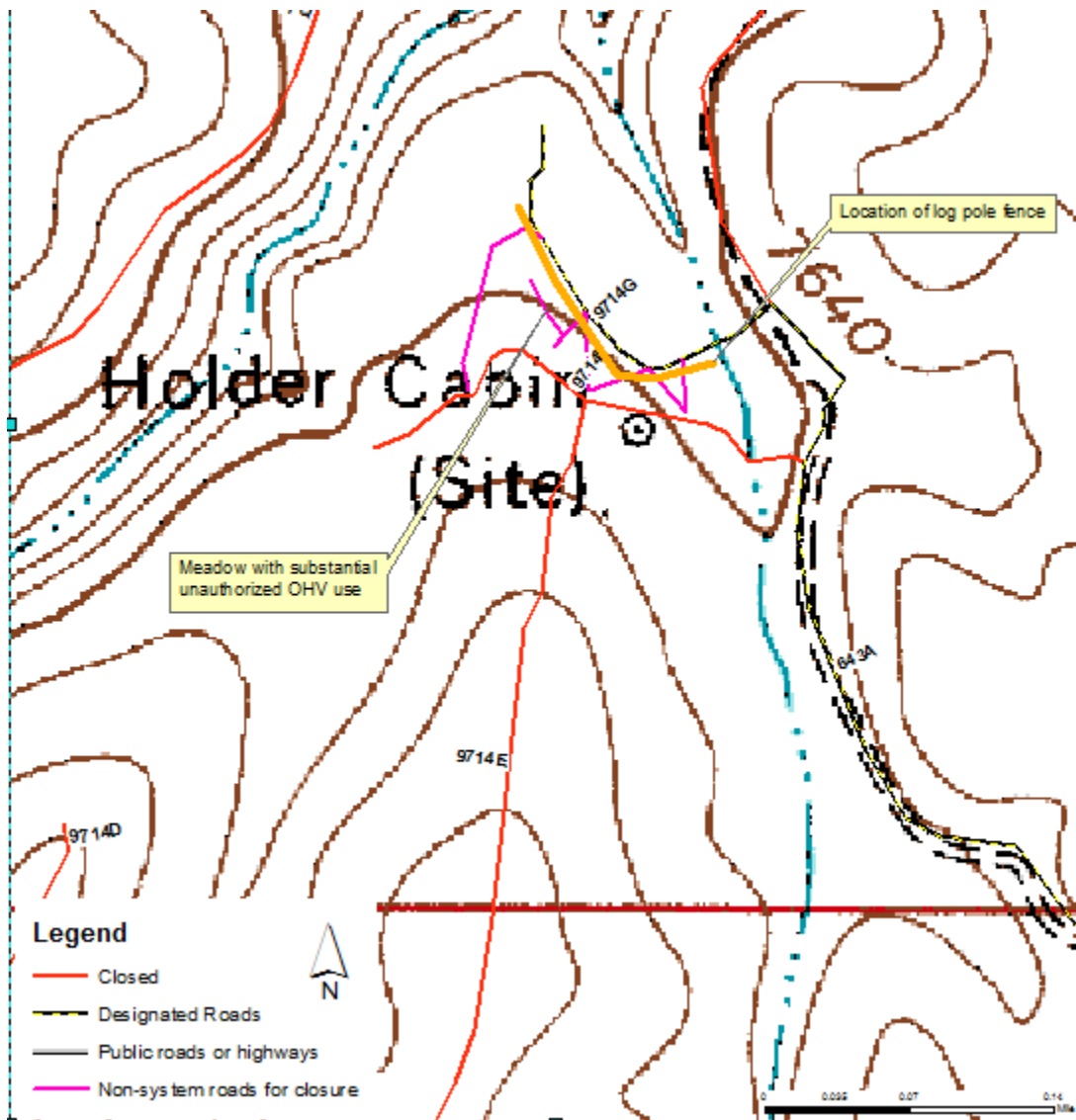


Figure 8. Map of Holder Cabin restoration work site



Figure 9. Installed log pole fence to reduce unauthorized motor vehicle use in sensitive meadow habitat at Holder Cabin



Figure 10. Restored meadow at Holder Cabin

Dry Creek non-system road closures

Date: August 2016

District: Red Rock Ranger District

Partners: ACE

Resource Protection objectives: Watershed and water quality protection

Explanation/reason for closure: The Red Rock Ranger District installed a number of boulders and moved slash and other materials to reduce unauthorized motor vehicle use on a network of non-system roads adjacent to or leading from 9845 and 9845C. These routes are nearby the scenic and heavily recreated Dry Creek in erosive soils. Blocking motorized access to these non-system roads will reduce loss of native vegetation and soil erosion in this area, supporting a more resilient watershed.

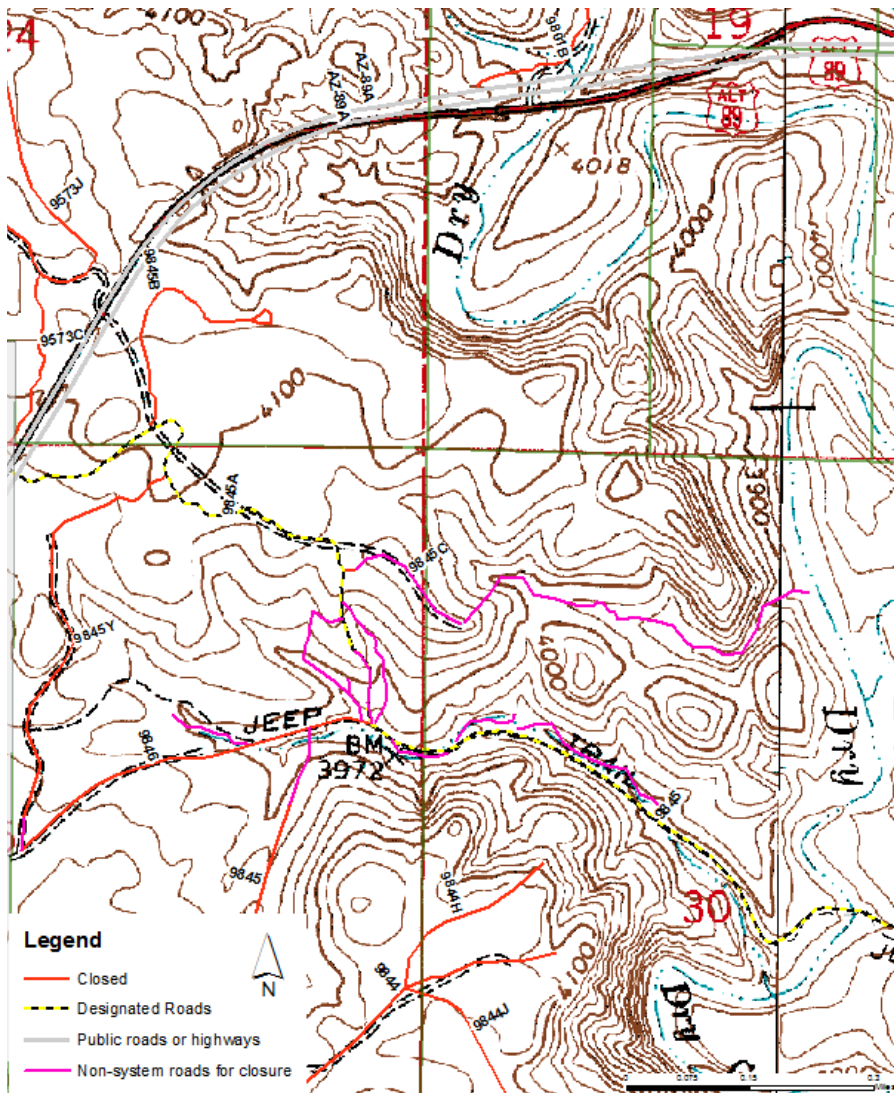


Figure 11. Map of resource protection measures to block non-system roads and reduce unauthorized motor vehicle use along and leading from FR 9845 and FR 9845C.



Figure 12. Boulders and carsonite signage placed along FR 9845C to reduce unauthorized motor vehicle use and new route establishment along Dry Creek.



Figure 13. Boulders and carsonite signage placed along FR 9845 to reduce unauthorized motor vehicle use and new route establishment along Dry Creek.

Sheep Springs Restoration and Protection Project

Date: July 2016

District: Red Rock Ranger District

Partners: Friends Of Northern Arizona Forests (FONAF)

Resource Protection objectives: Spring protection, aspen protection, riparian protection wildlife habitat protection

Explanation/reason for closure: The Friends of Northern Arizona Forests (FONAF) joined with the Flagstaff Ranger District to re-build a failing fence that had been installed to keep motor vehicles and car camping out of Sheep Springs, which is a small spring that supports a wet meadow ecosystem with riparian vegetation and lush aspen trees. In addition to reconstructing the fence, approximately nine separate non-system motorized trails that have become established since the old log worm fence



became non-functional were blocked and closed using either treated logs, slash, or boulders. Volunteers also posted signs noting that motorized access to this area is not permissible. These efforts are expected to facilitate recovery of riparian habitat near Sheep Springs and Bootlegger Spring, and reduce the disturbance and wildlife habitat impacts associated with unauthorized motor vehicle use. For example several of the routes blocked are within 1.4 mile of the Milos Butte Mexican spotted owl Protected Activity Center (PAC) and the Sheep Springs Northern goshawk Post-Fledgling Area.

Figure 14. Friends of Northern Arizona Forests volunteers take a quick breather during the reconstruction of the log pole fence surrounding Sheep Springs.

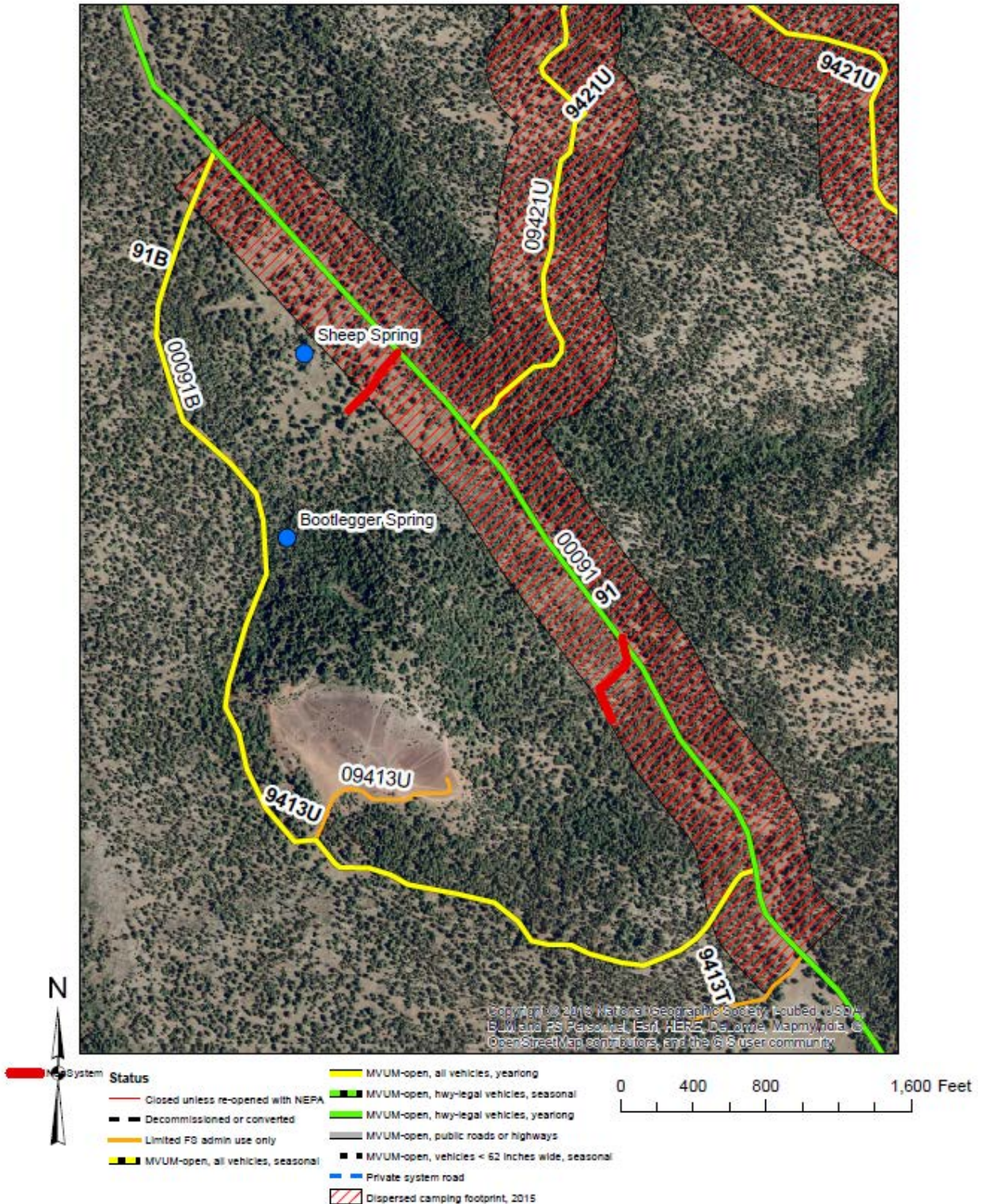


Figure 15. Map of general location of road rehabilitation and restoration activities

Cedar Flats non-system road closures

Date: June 2016

District: Red Rock Ranger District

Resource Protection objectives: Watershed restoration, wildlife habitat protection

Explanation/reason for closure: Blocking the non-designated 9201Y road reduces unauthorized motor vehicle use to stop the establishment of non-system roads and build on watershed restoration-based vegetation treatments that have occurred in the same general area.

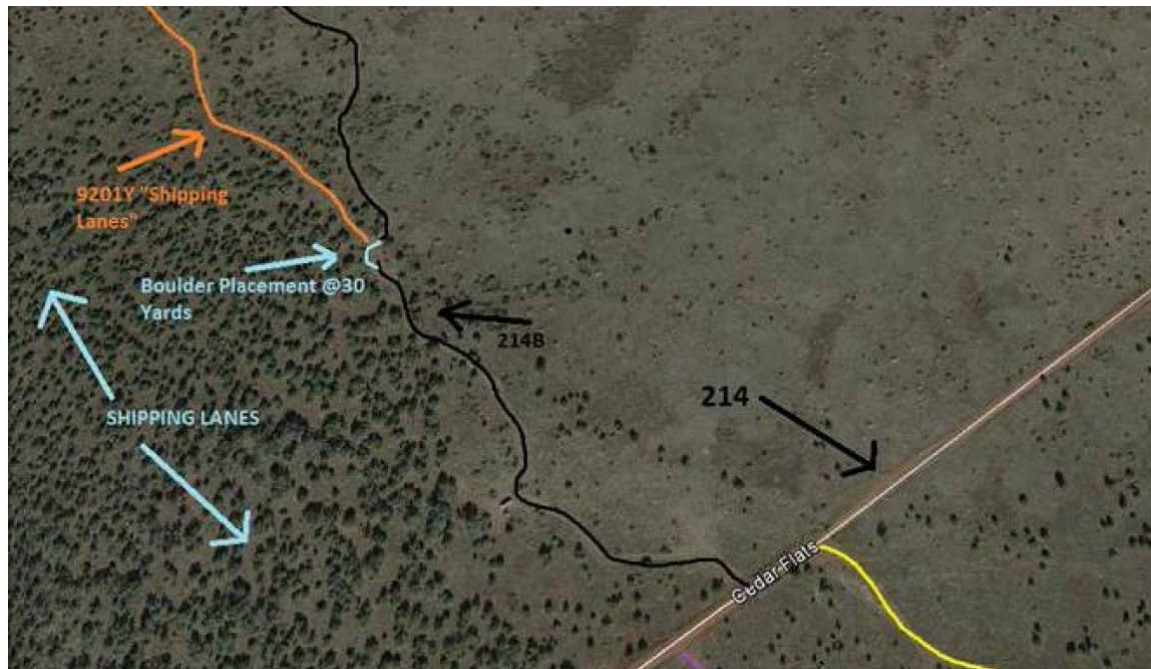


Figure 16. Aerial photo of 9201Y closure area



Figure 17. Area used to access 9201Y and surrounding non-designated routes blocked with boulders to discourage unauthorized motor vehicle use

Haywire Crater Protection Project

Date: May 2016

District: Flagstaff Ranger District

Resource Protection objectives: Scenic protection, wildlife and wildlife habitat protection

Explanation/reason for closure: Unauthorized motor vehicle use has resulted in the establishment of a number of non-system roads from an existing, large campsite along Forest Road 244 to the nearby Haywire Crater. It appears that regular OHV use from the campsite has created a number of routes on the top and south-facing slope of the crater as to be visible from approximately a mile away. In addition, several of the routes appear to be extending north toward a wildlife drinker constructed and maintained by the AZGFD. Continued unauthorized motor vehicle use in this area would likely increase impacts to scenery and result in wildlife harassment and habitat degradation. Large logs and signage were installed surrounding the existing dispersed campsite to discourage unauthorized motor vehicle use and facilitate more effective enforcement efforts at this location.



Figure 18. View of Haywire Crater from a dispersed campsite adjacent to Forest Road 244, which is the primary access point for unauthorized motor vehicle use in this area

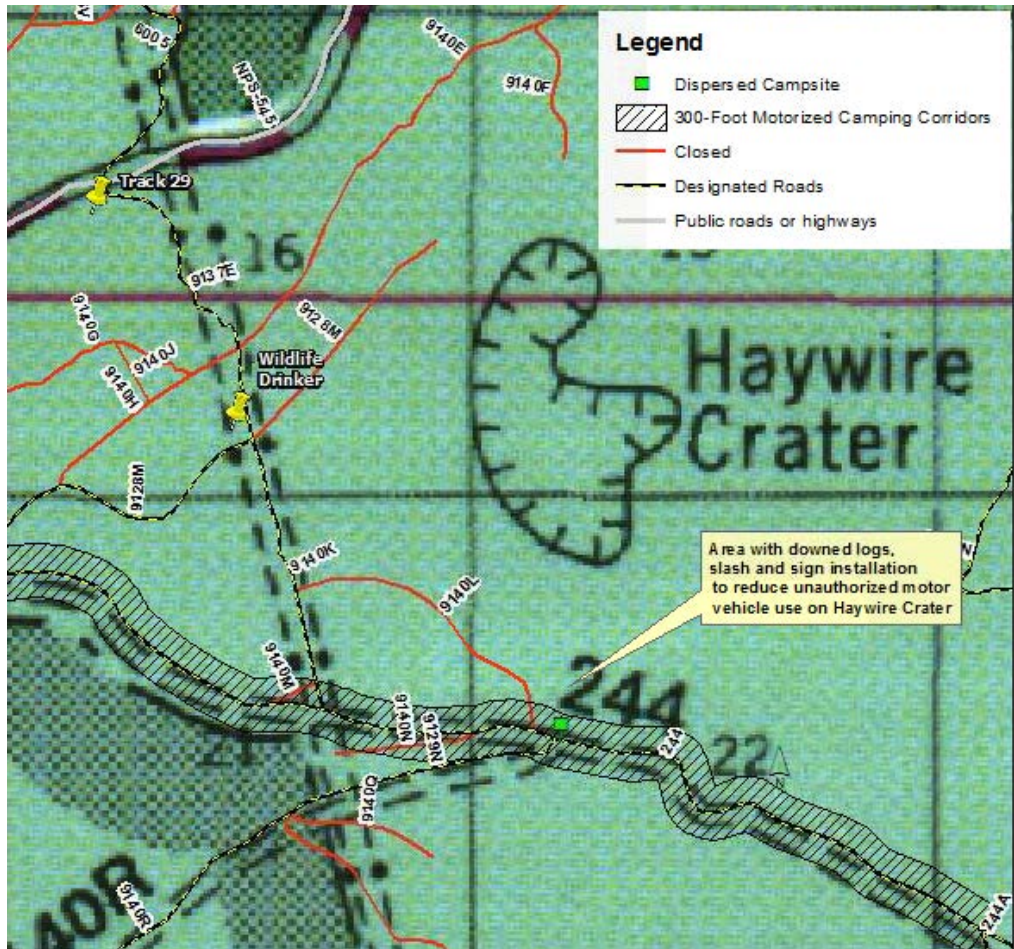


Figure 19. Map of the Haywire Crater area



Figure 20. Barriers and signage were placed to discourage unauthorized motor vehicle use

Green gate and Forest Glen Forest Access and Seasonal Gates

Date: Throughout 2016

District: Red Rock Ranger District

Resource Protection objectives: Rehabilitate several dozen non-system roads, reduce damage to road system during wet weather, improve signage and parking for increased compliance and enforcement

Explanation/reason for closure: Both 9205K and 9202Y are Forest System roads adjacent to private communities where there is ongoing unauthorized motor vehicle use and route establishment. Conditions in both of these areas continue to deteriorate, which affects soils, vegetation, and downstream water quality. Several efforts have been made to limit unauthorized motor vehicle use using signage, targeted enforcement, and education; but they have met with limited success. In February 2016, a decision was signed approving the re-alignment and delineation of the 9205K and 9202Y roads, establishing delineated trailhead/ parking areas, authorizing the installation of signage and at least one informational kiosk, and allowing for rehabilitation of surrounding non-system roads. In 2016, the Red Rock District began implementation of this decision by installing wet weather gates with pass throughs and repairing and rehabilitating the adjacent areas by filling and armoring several deep gullies that were contributing to ongoing erosion in the area. Unauthorized roads near the green gate (9205K) area were blocked, scarified, and re-seeded with the help of volunteers during National Public Lands Day on September 24, 2016.



Figure 21. Gate and pass through installed at 9202Y



Figure 22. Large gully that was repaired and armored at the 9202Y gate

9473J Leafy Spurge Infestation Management

Date: June 2016

District: Flagstaff Ranger District

Resource Protection objectives: Invasive weeds management

Partners: FONAF

Explanation/reason for closure: This project involved working with Friends of Northern Arizona Forest (FONAF) to block the 9473J road to motor vehicle use, which will prevent the spreading of leafy spurge to nearby areas and from establishing new populations in other areas of the Forest. Invasive species surveys illustrated that 9473J was in an area with thousands of leafy spurge plants. This spur road was primarily used for motorized camping, and as a result was very likely a source of leafy spurge spreading to other areas of the Forest as the invasive plant is known to have seeds that can stick to vehicles and be easily transported to other areas where new populations can become established. The very short 9473J

road was blocked with the construction of a log-pole fence, and the leafy spurge was treated. Signage was installed on the fence to explain to Forest visitors the purpose of the log pole fence.



Figure 23. Members of FONAF installing a log pole fence to prevent motor vehicle use in leafy spurge infested areas.



Figure 24. Log pole fence at 9473J

9241E Watershed Protection and Recreation Management

Date: June 2016

District: Flagstaff Ranger District

Resource Protection objectives: Watershed protection, dispersed camping opportunity

Explanation/reason for closure: The 9241E road is a road accessible from the south side of Stoneman Lake road, which includes a number of well-established campsites as it is easily accessible off a paved road, and provides very quick access for hunters to the Rattlesnake Quiet Area. The first 300 feet of this route was originally designated for motor vehicle use, but there were concerns that without some sort of physical blockade, the route would enable ongoing motor vehicle use in nearby Rarick Canyon. To address the issue of potential watershed impacts while still allowing for motor vehicle dispersed camping at the several existing campsites in this area, the Red Rock Ranger District delineated the camping area with boulders and installed a gate on the 9241E road to prevent motor vehicle use beyond the existing motorized campsites. The Forest has only received positive feedback from this effort, such as one Forest visitor who e-mailed to say. "Your group went in there and strategically placed large rocks around the perimeter of the campsite effectively blocking access to the interior. Thank you for a great job!"



Figure 25. Boulders places near 9241E to prevent motor vehicle use outside of existing campsites.