

**Rangeland Health Standards
Assessment**

Shale Rock Allotment #435

South Rabbit Hills Allotment #529

Fitzgerald FRF Allotment #502

Standards for Rangeland Health and Guidelines for Livestock Grazing Management (BLM, 1997)

Introduction

The Range Reform '94 Record of Decision (BLM, 1995a) recently amended current grazing administration and management practices. The ROD required that region-specific standards and guidelines be developed and approved by the Secretary of the Interior. In the State of Oregon, several Resource Advisory Councils (RACs) were established to develop these regional standards and guidelines. The RAC established for the part of the state covering the allotments listed above is the Southeastern Oregon RAC. These standards and guidelines for Oregon and Washington were finalized on August 12, 1997 and include:

Standard 1 - Upland Watershed Function

Upland soils exhibit infiltration and permeability rates, moisture storage, and stability that are appropriate to soil, climate, and landform.

Standard 2 - Riparian/Wetland Watershed Function

Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and landform.

Standard 3 - Ecological Processes

Healthy, productive, and diverse plant and animal populations and communities appropriate to soil, climate, and landform are supported by ecological processes of nutrient cycling, energy flow, and the hydrologic cycle.

Standard 4 - Water Quality

Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.

Standard 5 - Native, T&E, and Locally Important Species

Habitats support healthy, productive, and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soil, climate, and landform.

Allotment Overview **Shale Rock Allotment #435**

Location: See Attached Map

7.5 Minute Topographic Maps: Biscuit Point, Sawed Horn

AUMs of Authorized Use: 1,220 AUMs

Permitted Season: Winter

Grazing System: deferred to Winter

The Shale Rock Allotment is located approximately 55 miles north of Lakeview, Oregon. Land status within the allotment is 12,853 acres of public land. The allotment was categorized as an I=Improve, based on the **1983** rating form summarized as follows:

- Range condition is unsatisfactory.
- Forage production potential is moderate to high and present production is low to moderate.
- No serious conflicts or controversy exist.
- Opportunities exist for positive economic returns.
- Present management is satisfactory/unsatisfactory.

This rating of “I” from 1983 is based on the lack of vegetation cover and unstable soils after the 1983 Sharp Top Fire. Fire rehabilitation efforts included successfully seeding 3,000 acres in the #435 Allotment to crested wheatgrass, leaving pockets of unburned sagebrush and native grasses. Steep ridges were allowed to recover naturally to the original native grasses and forbs. The allotment is divided into two pastures, East and West.

Allotment Overview **South Rabbit Hills Allotment #529**

Location: See Attached Map

7.5 Minute Topographic Maps: Rabbit Hills SW, Rabbit Hills NW, Rabbit Hills NE, and Flagstaff Lake

AUMs of Authorized Use: 1,266 AUMs

Permitted Season: Winter/Spring

Grazing System: Deferred to Winter, early Spring use

The South Rabbit Hills Allotment is located approximately 45 miles northeast of Lakeview, Oregon. Land status within the allotment is 9,028 acres of public land. The allotment is divided into two pastures, North and South. The allotment was categorized as an I=Improve, based on the **1982** rating form summarized as follows:

- Range condition is unsatisfactory.
- Forage production potential is moderate to high and present production is low to moderate.

- No serious conflicts or controversy exist.
- Opportunity may exist for positive economic returns.
- Present management is unsatisfactory.

This rating of “I” from 1982 is based on the lack of forage management in the Rabbit Hills area. The Rabbit Hills was seeded to crested wheatgrass and other species after a wildfire in the mid 1980’s, leaving pockets of unburned sagebrush and native grasses and the steeper slopes to recover naturally. The North Warner Forage Allocation Agreement was developed and implemented in 1989 due to the additional forage created from fire rehabilitation efforts. Division fences were constructed which formed four allotments out of the Rabbit Hills. South Rabbit Hills #529 is one of those allotments and is currently managed to maintain the forage availability.

Allotment Overview

Fitzgerald FRF Allotment #502

Location: See Attached Map

7.5 Minute Topographic Maps: Cooper Draw, Crook Peak, Drake Peak, Drake Peak NE, Little Honey Creek

AUMs of Authorized Use: 329 AUMs

Permitted Season: Spring, Summer, Fall, & Winter

Grazing System: unknown

The Fitzgerald FRF Allotment is located approximately 35 miles northeast of Lakeview, Oregon. Land status within the allotment is 5,150 acres of public land. The allotment was categorized as an C=Custodial, based on the **1982** rating form summarized as follows:

- Range condition is satisfactory.
- Forage production potential is moderate to high and present production is near potential.
- Limited conflicts or controversy may exist.
- Opportunities exist for positive economic returns.
- Present management is satisfactory or is only logical practice.

Most of the public land in #502 is intermingled with privately own land which limits the level of management that can be done in this allotment. Good resource management has taken place in the allotment mainly by the permittee/land owner.

STANDARD 1 - Upland Watershed -Upland soils exhibit infiltration and permeability rates, moisture storage, and stability that are appropriate to soil, climate, and landform.

Standard 1 is being met.

A.) Soil Surface Factor (SSF) is an indicator used to evaluate Standard 1. SSF documents erosion class and soil susceptibility to accelerated erosion and was determined during the Ecological Site Inventory (ESI) from 1988, 1995, 1996, and 1997. Current livestock grazing practices in the Shale Rock #435, South Rabbit Hills, #529, and Fitzgerald FRF #502 Allotments are not affecting upland watershed functions. See table below for the allotment summary of SSF. The “Unknown” category includes rock outcroppings and playas.

Shale Rock #435: Only 9% of the allotment is in the moderate category which indicates some active erosion and evidence of past erosion has occurred. These are range sites with a wide range of slopes and soil types and can be susceptible to both wind and water erosion. The average utilization on the native/crested wheatgrass mix since 1990 has been 39%.

From the utilization levels, season of use and locations of higher utilization levels, current grazing practices appear not responsible for areas being in the moderate erosion class. The root systems of perennial vegetation cover assist in holding soil in place. Perennial vegetation provides protective cover to reduce soil movement, decrease compaction and thus increase infiltration.

ESI for SSF from 1988, 1995, 1996, and 1997

ESI EROSION CONDITION CLASSES*					
	Stable	Slight	Moderate	Critical	Unknown**
#435 -Percent of Allotment	0%	65%	25%	0%	10%
#529 -Percent of Allotment	5%	60%	30%	0%	5%
#502 percent of Allotment	2%	55%	30%	0%	13%

**The erosion condition classes are based on numeric scoring system which considers soil movement, surface litter, surface rock, pedestalling, flow patterns, rills and gullies.*

*** The SSF scores are derived from actual transects and an actual transect was not done in every Site Writeup Area (SWA) but only in enough SWAs to represent the different vegetation types. Therefore the unknown acres result from SWAs referred to as “Same As”, which are areas with similar vegetation, soils and conditions to a SWA with an actual transect.*

B.) Another indicator of Upland Watershed condition is plant composition and community structure. Crested wheatgrass is the dominant vegetation type in the #435 and #529 allotments. Pockets and steep slopes of sagebrush/native grass types scatter across the landscape in a mosaic pattern due wildfires in the 1980’s. Within the

sagebrush/ native grass type there is considerable variation, with basin big sagebrush/grass and Wyoming big sagebrush/grass present throughout the allotments. Cheatgrass stands are present and demonstrate what the potential result is if the perennial grass and sagebrush cover is lost because of a major disturbance.

Ecological condition classes for #435, #529, and #502 Allotments: sagebrush types with perennial grass understory are generally in the mid and late seral stages, appear stable, and are not impacted by the current grazing management; the crested wheatgrass seedings are generally in the early seral stage, appear stable, and are not impacted by the current grazing management. Overall, the upland watersheds appears to be functioning properly. Reviews of the allotments indicate that the majority of the allotments appear to exhibit infiltration, storage, and stability that are appropriate to the site. From field visits, the effects of grazing on upland watersheds appear to be short-term.

In the crested wheatgrass seedings, crested wheatgrass is the major vegetative component contributing to the capture and storage of water in the allotment. The deep expansive root system of crested wheatgrass aids in this process. The shrub and crested wheatgrass components of the allotments provide plant cover and plant community structure that also contribute to potential capture and storage of water. Crested wheatgrass aids in soil stability and decreases the susceptibility of the sites to erosion.

Cheatgrass invasion contributes to the upland watershed not functioning properly in some areas of the allotments. Cheatgrass competes for water and nutrients with other desirable grass species. Cheatgrass has a shallow root system that reduces the potential capture and storage of water. Since cheatgrass is a fall annual, it uses available soil moisture earlier in the growing season, reducing available soil moisture later in the season. This lack of moisture reduces the ability of perennial vegetation to establish and grow to its potential. In addition, cheatgrass increases the risk of soil organic matter decline from wildfire.

Livestock grazing does not appear to be increasing the amount of cheatgrass in the allotments. Since these allotments are managed with a winter/spring and spring/summer/fall/winter season of use, livestock graze the cheatgrass. Grazing when cheatgrass is green may reduce the competition of cheatgrass in the long term.

STANDARD 2 - Riparian/Wetland-Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and landform.

Standard 2 is being met for Riparian/Wetland function for the Shale Rock and South Rabbit Hills Allotments. There are no major intermittent or perennial streams and no jurisdictional wetlands in these allotments.

Standard 2 is being met for Riparian/Wetland function for the Fitzgerald FRF Allotment. There are 202 acres of Palustrine wetlands within the allotment, all of which are in Proper Functioning Condition.

STANDARD 3 -Ecological Processes-Healthy, productive, and diverse plant and animal populations and communities appropriate to soil, climate, and landform are supported by ecological processes of nutrient cycling, energy flow, and hydrologic cycle.

Plants:

Standard 3 is being met for plant populations in the #435, #529, and #502

Allotments. The majority of #435 and #529 Allotments were seeded to crested wheatgrass after large wildfires in the 1980's. Presently, the plant communities are healthy and vigorous with some invasion of shrubs and pockets of native grasses. Allotment #502 has native plant communities in excellent condition.

Wildlife:

Standard 3 is being met for animal populations in #435, #529, and #502 Allotments.

Much of the area supports healthy diverse wildlife populations. Wildlife populations within non-native seedings and heavily infested cheatgrass areas are not as diverse as they could be if they were in a late seral stage or closer to their potential vegetative communities. They do, however, still have adequate levels of species diversity to remain functional. This standard is currently being met from the aspect of wildlife populations and diversity.

STANDARD 4 - Water Quality Standards- Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.

Standard 4 is being met for surface and ground water quality in Allotments #435, #529, and #502. Neither surface water nor groundwater within these allotments has been listed for exceeding State water quality standards.

STANDARD 5 - Biological Diversity-Habitats support healthy, productive, and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soil, climate, and landform.

Plants:

Standard 5 is being met for native, T&E and locally important plant species in the #435, #529, and #502 Allotments.

These allotments have been surveyed for Bureau special status plants and none were found at this time.

Wildlife:

Standard 5 is being met for native, T&E and locally important wildlife species in Allotments #435, #529, and #502.

Special status wildlife species or their habitats that are present within these allotments include the bald eagle (*Haliaeetus leucocephalus*), ferruginous hawk (*Buteo regalis*), peregrine falcon (*Falco peregrinus*), burrowing owl (*Speotyto cunicularia*), kit fox (*Vulpes macrotis*), sage-grouse (*Centrocercus urophasianus*), and pygmy rabbit

(*Brachylagus idahoensis*). There are also three species with high public interest: mule deer (*Odocoileus hemionus*), California bighorn sheep (*Ovis canadensis*) and pronghorn antelope (*Antilocapra americana*).

No nesting habitat exists within these allotments for the bald eagle or peregrine falcon. It is suspected that they are occasional visitors to the area. Some marginal nesting habitat is available for ferruginous hawks on a few cliff faces within and adjacent to these allotments. No incidental sightings of peregrines exist within the vicinity of these allotments due to lack of good foraging areas for peregrine falcons within close proximity. No surveys have been conducted for ferruginous hawk. Ferruginous hawk foraging habitat exists through much of the allotment. Bald eagle foraging does occur, however it is probably restricted mostly to road killed deer adjacent to the major roadways and occasional carrion scattered through the allotments. There are no resource conflicts for peregrine falcons, ferruginous hawks or bald eagles.

No burrowing owl sightings or nesting burrows have been observed within these allotment, however they have been observed at adjacent locations. Inventories for burrowing owls were conducted in 2000 and only occasional sighting were documented. There are no resource conflicts for this species.

Habitat is present for kit fox and pygmy rabbit, but no known locations exist within the allotments for these species. No inventories have been conducted for either of these species. However occasional sightings have been made within the surrounding area. They are suspected to occur within portions of these allotments. There are no resource conflicts for these species.

Some marginal habitat exists within these allotments for bighorn sheep. It is suspected that they may travel through these allotments from time to time. There is little overlap in range between bighorns and cattle in general because of habitat partitioning. No major conflicts exist between bighorn sheep and cattle grazing within these allotments.

Pronghorn antelope are common in parts of these allotments. Pronghorn use is concentrated in portions of the allotments that have been burned, reseeded or lack heavy shrub cover. No major conflicts exist between pronghorn and cattle grazing within this area.

Mule deer inhabit much of the allotments, but are widely spread and in low numbers. No high concentrations of wintering mule deer inhabit these allotments. Bitterbrush is not very abundant and sagebrush browse use appears to be somewhat stable at this time. No conflicts exist between mule deer and cattle grazing.

There are no known sage-grouse leks within these allotments. However, there are 3 inactive sage-grouse lek sites within five miles of the #435 Allotment. All three of these lie to the north of the allotment. The status of these three leks was checked from 2002 - 2005 and no birds have been observed. Large proportions of the allotment are currently unusable to sage grouse due to grassland conversion from past wildfires, invasive

cheatgrass and the amount of salt desert scrub brush. Current sage-grouse habitats within the #435 Allotment contain approximately 37% (4950 acres) nesting and early brood rearing habitats. Winter habitats make up an additional 13% (1734 acres). The other 50% (6650 acres) of the allotment contains areas that are considered non-suitable for sage-grouse. This is primarily due to a lack of shrub cover in much of these allotments due to past wildfires, cheatgrass or salt desert shrub communities. No major conflicts exist between cattle grazing and sage-grouse within these allotments at this time.

Current Management and Recent Management Changes:

The Shale Rock #435, South Rabbit Hills #529 Allotments are managed mainly for the forage value of crested wheatgrass. However, the native grasses and shrubs that are present appear to be responding well to the current grazing system.

Team Members

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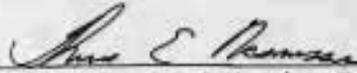
Title

Rangeland Management Specialist
Wildlife Biologist
Wildlife Biologist
Botanist
Noxious Weeds Specialist
Supervisory NRS
Supervisory NRS

Determination:

Existing grazing management practices or levels of grazing use in the Shale Rock #435, South Rabbit Hills #529, and Fitzgerald FRF #502 Allotments promote achievement of significant progress towards the Oregon/Washington Standards and Guidelines for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

Existing grazing management practices or levels of grazing use in the Shale Rock #435, South Rabbit Hills #529, and Fitzgerald FRF #502 Allotments will require modification or change prior to the next grazing season to promote achievement of the Oregon/Washington Standards and Guidelines for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.



Tom Rasmussen, Lakeview Resource Area Manager

09/30/05
Date

#435 SHALE ROCK ALLOTMENT

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430

433

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429

WEST

#435

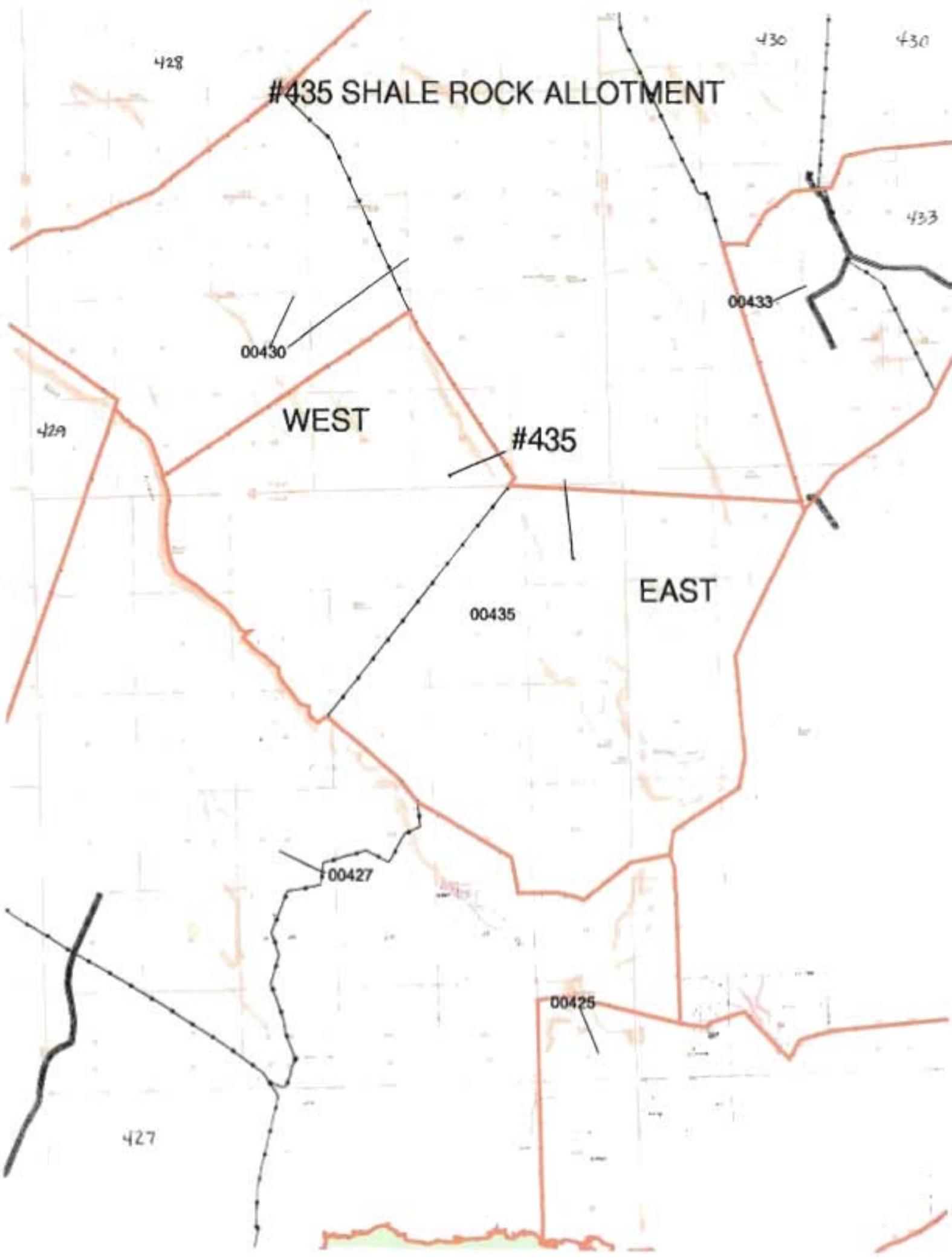
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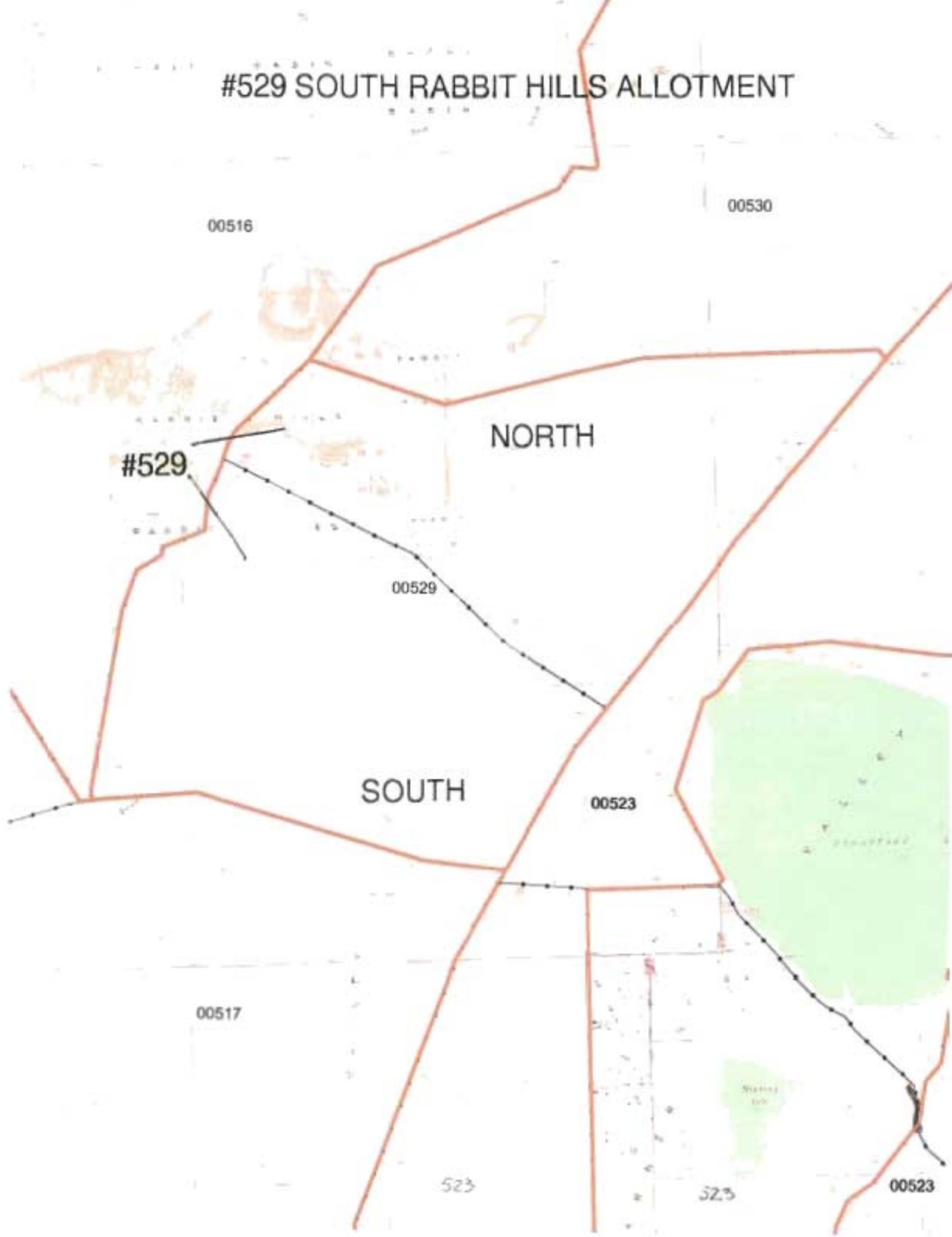
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#529 SOUTH RABBIT HILLS ALLOTMENT



#502 FITZGERALD FRF ALLOTMENT

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