

STANDARDS FOR RANGELAND HEALTH ASSESSMENT FOR SAGEHEN ALLOTMENT #0208

RANGELAND HEALTH STANDARDS - ASSESSMENT SAGEHEN ALLOTMENT #0208

STANDARD 1 - UPLAND WATERSHED

This standard is being met on the allotment. The indicators used to evaluate this standard are Soil Surface Factor (SSF), which documents accelerated erosion; and plant community composition, which indicates root occupancy of the soil profile.

Soil Surface Factor (SSF) is an indicator of accelerated erosion and is a method of documenting observations regarding erosion.

Of the 5,870 acres in Hickey Individual Allotment, 93% have an SSF rating of slight and 7% are rated as moderate. A copy of the form used to document SSF is attached (Appendix B, "Determination of Erosion Condition Class").

Another indicator of Upland Watershed condition is plant composition and community structure. Current plant composition is compared to a defined Potential Natural Plant Community for the identified soil type and precipitation zone. Using the 1988 Ecological Site Inventory, the percent of the allotment in each seral stage is summarized in the table below.

Seral Stage	Percent comparability to Potential Natural Community	Percent of allotment in seral stage
Early	0-25%	0
Mid	26-50%	54%
Late	51-75%	28%
Unknown*		18%

* The unknown acres are the inclusions within a vegetation community that include transition areas and plant communities too small to be mapped separately.

The Observed Apparent Trend (Appendix C) determined during the ESI and summarized in the Biological Evaluation (1994) showed an upward trend on 23% of the allotment, static trend on 64% and the remaining 13% is unknown.

The Allotment Evaluation (1993) determined the trend to be upward for the vegetation in the uplands when considering the 1 photo trend station, nested frequency transect and the professional judgement of the resource specialists. A fence was constructed in

1995 and Deep Creek is now part of a riparian pasture. The new grazing strategy is to graze the riparian pasture earlier in the summer and the Deep Creek riparian vegetation has been improving the last three years.

STANDARD 2 - RIPARIAN/WETLAND

This standard is not being met because some stream reaches are not in Proper Functioning Condition (PFC). However the current management of livestock is resulting in significant progress towards meeting the goal. Lotic Proper Functioning Condition (PFC) site inventories were completed in 1996 on Deep Creek. The following table summarizes the non-PFC reach locations and their management status.

STREAM	REACH	PFC RATING	MANAGEMENT
Deep	Upper	FAR* Trend up	Utilization limits
Deep	Lower	Non-functional	Utilization limits

* FAR Functional at Risk

In 1995, both reaches were placed in a riparian pasture to better manage the riparian vegetation. Professional opinion is that the upper reach has improved to a functional condition. Both reaches are being managed under consultation with the U.S. Fish and Wildlife Service on effects of grazing on the Threatened Warner sucker. While the existing conditions are largely a result of past grazing practices and upstream channelization, current management of livestock is resulting in significant progress towards meeting the standard, and is not a significant factor in not meeting the standard. This pasture also includes 3.5 miles of stream under private ownership that was voluntarily included in the riparian management plan.

STANDARD 3 - ECOLOGICAL PROCESSES

This standard is being met. The Observed Apparent Trend for the vegetation communities as described in Standard 1 is static or upward on 87% of the allotment. As explained in Standard 1 the trend for the allotment appears to be upward.

The Sagehen Allotment (0208) supports most of the terrestrial animals common to the sagebrush steppe in the Great Basin. The allotment provides habitat for huntable populations of mule deer, pronghorn antelope, Rocky Mountain elk, and sage grouse. The 60 AUMs allocated to wildlife are adequate to support the current wildlife populations. There is currently no major competition between wildlife and domestic livestock for forage, either early green-up grasses and forbs or winter browse such as antelope bitterbrush and curl-leaf mountain mahogany.

The allotment lies within ODFW's Warner Big game Management Unit for deer, pronghorn antelope, and elk. Current populations in that unit are slightly below management objectives for mule deer and substantially below that proposed for elk. The entire allotment lies within crucial mule deer winter range and portions of the allotment are used by elk throughout the entire year. The allotment also contains year-round habitat for pronghorn antelope and sage grouse, however, no crucial habitat has been identified for either species.

STANDARD 4 - WATER QUALITY STANDARDS

This standard is not being met. Deep Creek from the mouth to the headwaters does not meet state standards for temperature. The current and improved grazing management limits use on the riparian vegetation and has resulted in an increase in stream side cover and vegetation. Therefore, it is felt that current management of livestock is resulting in significant progress towards meeting the standard and is not a significant factor in not meeting this standard.

STANDARD 5 - NATIVE, T&E, and LOCALLY IMPORTANT SPECIES

This standard is being met. The Warner sucker is listed as a Threatened Species under the Endangered Species act. There is no occupied habitat currently being grazed in the allotment. Because Deep Creek flows into occupied habitat below the grazed pasture, it was determined in Section 7 consultation that grazing was having an adverse effect on suckers. This effect has been minimized by restrictions placed on riparian grazing and the Service issued a Biological Opinion to authorize take of the species. Warner red-band trout, a Bureau Sensitive Species, is found in both reaches in the allotment.

Big game habitat within the Sagehen Allotment is monitored via 2 browse (bitterbrush) transects. The condition of the bitterbrush stands within the allotment demonstrates what years of fire suppression, previous livestock grazing practices, and high deer numbers in the past does to mule deer winter range. There are numerous decadent or dead bitterbrush plants within the allotment which are still providing valuable forage and cover for wintering deer, however, recruitment of young plants is relatively low. Overall the studies show some improvement in bitterbrush vigor and stand replacement over the past 10-15 years.

The habitat provided within the allotment is crucial to wintering deer in that it adjoins with winter range on the forest to the west and to BLM-administered winter range to the north and south. It provides habitat connectivity, as well as, a spatial distribution of lower elevation range critical during high snowfall years.

The deer, elk, and pronghorn populations are healthy and increasing in number within the allotment. Habitat quantity and quality do not appear to be limiting population size or health. Coyote predation is thought to be depressing mule deer recruitment, however and populations continue to fluctuate at or slightly below ODFW's Management Objective for the unit. A general hunt season is slowing the population expansion of elk within the unit. However, if ODFW is unable to limit future expansion of the herd to the proposed Management Objective for the area, competition with domestic livestock may occur and depredation on private lands may become an issue. Elk expansion will be addressed in the upcoming RMP.

The allotment also provides habitat for numerous small and nongame birds and mammals common to the Great Basin, as well as sage grouse habitat, though marginal. There are no known sage grouse leks within the allotment. Sage grouse populations like the rest of southeastern Oregon are stable to declining. The allotment also provides habitat for raptors and some BLM and state sensitive wildlife species and federally listed species. No critical habitat or limitations have been identified for any of these species which include wintering bald eagles, and possibly pygmy rabbits and various sensitive bat species.

Noxious weeds are known to occur in the allotment. Weeds are concentrated along the major travel routes and in riparian areas. Cattle grazing generally can contribute to the spread of weeds but the early season use in the riparian pasture allows for the cattle to be moved off site prior to seed set.

The special status plant prostrate buckwheat is found within the allotment in a low sage site and the population is in a vigorous condition. Current grazing management poses no apparent threat to this plant. There is more detail about prostrate buckwheat in Appendix A.

CURRENT MANAGEMENT AND RECENT MANAGEMENT CHANGES

The current management is a two pasture system with a riparian pasture and an upland pasture. There was an allotment evaluation in 1992 which recommended a change in the season of use. There was a Biological Evaluation completed in 1994 and a Biological Opinion issued by the USFWS that the proposed grazing authorizations in the Sagehen riparian pasture are not likely to jeopardize the continued existence of the threatened Warner sucker or result in the destruction or adverse modification of its designated critical habitat. The proposed grazing authorization and the current agreement is to graze the riparian pasture in the early summer (June-July) which would allow for regrowth before spring runoff the following year. There are also willow utilization standards on the riparian area to prevent over use of the willows.

Team Members

Title

Les Boothe	Range Management Specialist
Alan Munhall	Fishery Biologist
Vern Stofleth	Wildlife Biologist
Lucile Housley	Botantist
Walt Devaurs	Wildlife Biologist
Bill Cannon	Archaeologist
Dick Mayberry	Supervisory NRS
Robert Hopper	Supervisory RMS
Erin McConnell	Weed Management Specialist

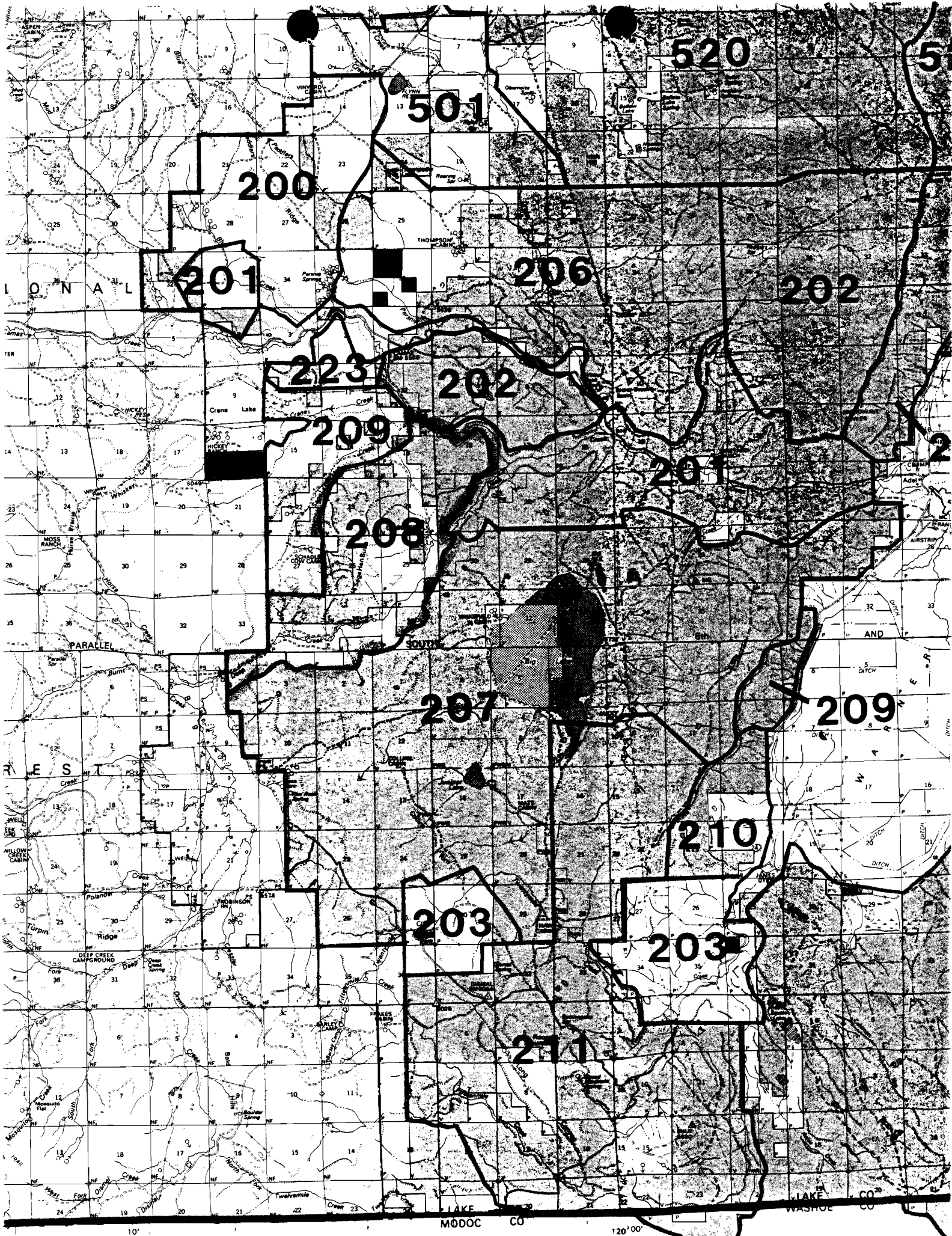
Determination

- Existing grazing management practices or levels of grazing use on the Sagehen Allotment promote achievement of significant progress towards the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

- Existing grazing management practices or levels of grazing use on the Sagehen Allotment will require modification or change prior to the next grazing season to promote achievement of the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

Scott R. Florence
Scott Florence
Area Manager, Lakeview Resource Area

1/14/99
Date



APPENDIX A

Allotment: # 0208 Sagehen

Special Status Plants: Prostrate Buckwheat (Eriogonum prociduum)

Status: BLM Bureau Sensitive Species, Oregon Natural Heritage Program List 1: taxa which are endangered or threatened throughout their range; Global 3, State 2.

Current Situation:

Prostrate buckwheat was found in the Sagehen Allotment in 1991. It occurs on a barren site within a low sagebrush community. The population is in vigorous condition and contains about 300, or less, plants; site was visited in 1996.

There are only five known populations of prostrate buckwheat on the Lakeview District. The species has a very limited global distribution, occurring only in Lake County, Oregon; Modoc and Lassen Counties, California; and Washoe County, Nevada. There are less than fifteen populations worldwide.

Management Objective:

Maintain the habitat and population of Eriogonum prociduum on the Sagehen Allotment.

Lucile A. Housley, Botanist
Lakeview Resource Area
16 November 1998

Appendix B.

DETERMINATION OF EROSION CONDITION CLASS
Soil Surface Factors

SOIL MOVEMENT	No visible evidence of movement 0 1 2 3	Some Movement of soils particles 4 5	Moderate Movement of soil is visible and recent Slight terracing generally less than 1" in height 6 7 8	Occurs with each event. Soil and Debris deposited against minor obstructions 9 10 11	Subsoil exposed over much of area, may have embryonic dunes and wind scoured dunes 12 13 14
SURFACE LITTER	Accumulating in place 0 1 2 3	May show slight movement 4 5 6	Moderate movement is apparent, deposited against obstacles 7 8	Extreme movement apparent, large and numerous deposits against obstacles 9 10 11	Very little remaining (use care on low productive sites) 12 13 14
SURFACE ROCK	If present, the distribution of fragments show no movement caused by wind or water. 0 1 2	If present, coarse fragments have a truncated appearance or spotty distribution caused by wind or water 3 4 5	If present, fragments have a poorly developed distribution pattern caused by wind or water 6 7 8	If present, surface rock or fragments exhibit some movement and accumulation of smaller fragments behind obstacles 9 10 11	If present, surface rock or fragments or dissected by rills and gullies or are already washed away 12 13 14
PEDESTALLING	No visible evidence of pedestalling 0 1 2 3	Slight pedestalling, in flow patterns 4 5 6	Small rock and plant pedestals occurring in flow patterns 7 8 9	Rocks and plants on pedestals generally evident, plant roots exposed 10 11	Most rocks and plants pedestalled and roots exposed 12 13 14
FLOW PATTERNS	No visible evidence of flow patterns 0 1 2 3	Deposition of particles may be in evidence 4 5 6	Well defined, small, and few with intermittent deposits 7 8 9	Flow patterns contain silt and sand deposits and alluvial fans 10 11 12	Flow patterns are numerous and readily noticeable. May have large barren fan deposits. 13 14 15
RILLS	No visible evidence of rills. 0 1 2 3	Some rills in evidence at infrequent intervals over 10'. 4 5 6	Rills ½" to 6" deep occur in exposed places at approximately 10' intervals. 7 8 9	Rills ½" to 6" deep occur in exposed area at intervals of 5 to 10". 10 11 12	May be present at 3" to 6" deep at intervals less than 5'. 13 14 15
GULLIES	May be present in stable condition. Vegetation on channel bed and side slopes 0 1 2 3	A few gullies in evidence which show little bed or slope erosion. Some vegetation present on slopes. 4 5 6	Gullies are well developed with active erosion along less than 10% of their length. Some vegetation may be present. 7 8 9	Gullies are numerous and well developed with active erosion along 10-50% of their lengths or a few well developed gullies with active erosion along more than 50% of their length 10 11 12	Sharply incised gullies cover most of the area and over 50% are actively eroding. 13 14 15
SITUATION	TOTAL				

Erosion Condition Classes: stable 0-20: Slight 21-40: Moderate 41-60: Critical 61-80: Severe 81-100

Appendix C.

OBSERVED APPARENT TREND

(Check appropriate box in each category which best fits area being observed)

VIGOR (10 Points)		Desirable grasses, forbs and shrubs are vigorous, showing good health. These plants should have good size, color and produce abundant herbage.
(6 Points)		Desirable grasses, forbs and shrubs have moderate vigor. They are medium size with fair color and producing moderate amounts of herbage, some seed stalks and seedheads are present.
(2 Points)		Desirable grasses, forbs and shrubs have low vigor. They appear unhealthy with small size and poor color. Portions of clumps or entire plants are dead or dying. Seed stalks and seedheads almost non-existent except in protected areas.
SEEDLINGS (10 Points)		There is seedling establishment of desirable grasses, forbs and shrubs. Seedlings are present in open spaces between plants and along edges of soil pedestals. Few seedlings of invader or undesirable plants are present.
(6 Points)		Some seedlings of desirable grasses, forbs and shrubs may or may not be present in open spaces between plants. Some seedlings of invader or undesirable plant species may or may not be present.
(2 Points)		Few if any seedlings of desirable grasses, forbs and shrubs are being established. Seedlings of invaders or undesirable should be present in open space between plants.
SURFACE LITTER (5 Points)		Surface litter is accumulating in place.
(3 Points)		Moderate movement of surface litter is apparent and deposited against obstacles.
(1 Point)		Very little surface litter is remaining.
PEDESTALS (5 Points)		There is little visual evidence of pedestalling. Those pedestals are sloping or rounding and accumulating litter. Desirable forage grasses may be found along edges of pedestals.
(3 Points)		Moderate plant pedestalling. No visual evidence of healing or deterioration. Small rock and plant pedestals may be occurring in flow patterns.
(1 Point)		Most rocks and plants are pedestalled. Pedestals are sharpened and eroding often exposing grass roots.
GULLIES (5 Points)		Gullies may be present in stable condition with moderate sloping or rounded sides. Perennials should be establishing themselves on bottom and sides of channel.
(3 Points)		Gullies are well developed with small amounts of active erosion. Some vegetation may be present.
(1 Point)		Sharply incised V-shaped gullies cover most of the area with most of the gullies actively eroding. Gullies are mostly devoid of perennial plants with fresh cutting of the bottom.

TOTAL POINTS _____ Rating 26-35-Upward; 17-25-Static; 7-16-Downward