RANGELAND

HIGALINHI

ASSESSMENTS

FOR

GERMAN VALLEY ALLOTMENT

FUNDAMENTALS OF RANGELAND HEALTH Standards and Guidelines Assessment German Valley Allotment

Utah Standards for Rangeland Health were assessed by and an interdisciplinary team on 8/20/2002 on the German Valley (#04026) allotment. The interdisciplinary team (consisting of Rangeland Management Specialists, Wildlife Biologists, and Natural Resource Specialists) utilized the Tooele County Soil Survey (USDA-NRCS 2000), Range Site Descriptions (USDA-SCS 1994), and Interpreting Indicators of Rangeland Health (USDI-BLM et al. 2000). Specific Upland sites were selected based on land ownership, representative range sites, livestock use patterns, and the permittees (figure 1).

PART 1. CONFORMANCE REVIEW

STANDARD#1

<u>Upland soils exhibit permeability and infiltration rates that sustain or improve site productivity, considering the soil type, climate, and landform.</u>

Site Number	Soil Stability	Hydrologic Function
Trend Site #1	Stable	Functioning
Trend Site #2	Stable	Functioning
Trend Site #3	Stable	Functioning
Site #4	Stable	Functioning

RESOURCE CONDITIONS WITHIN THE ALLOTMENT MEET THE STANDARD? Yes

Rationale:

The Ecological Sites in this allotment included Desert loam (Shadscale) (#122), Desert gravelly loam (Shadscale) (#120), Desert Flat (Shadscale) (#126). There were no signs of gullies, wind scours, or blowouts. Bare ground was considered adequate for site potential and litter was found to be in place. No sign of compaction was observed. There were no current Flow patterns, pedestals, and deposition areas. The vegetation on the site is adequate to protect the site from erosion. These factors indicate that the existing soil resource is stable and functioning hydrologically.

STANDARD#2

Riparian and wetland areas are in properly functioning condition. Stream channel morphology and functions are appropriate to soil type, climate and landform.

Stream/Spring	PFC Rating
No Riparian Areas on allotment	N/A

RESOURCE CONDITIONS WITHIN THE ALLOTMENT MEET THE STANDARD? N/A

Rationale:

There are no riparian areas on the German Valley Allotment. Standard #2

does not apply.

STANDARD#3

Desired species, including native, threatened, endangered, and specialstatus species, are maintained at a level appropriate for the site and species

involved.

Site Number	Species Diversity
Trend Site #1	Intact
Trend Site #2	Intact
Trend Site #3	Intact
Site #4	At Risk

RESOURCE CONDITIONS WITHIN THE ALLOTMENT MEET THE STANDARD? Yes

Rationale:

The allotment nearly matches the Range site descriptions, biotic diversity is for the most part "Intact." All native plant species are present and in abundance on all sites studied and the condition of the allotment was considered to be improving. The Rangeland health assessment team determined that Site #4 is "At Risk" of fire due to a Cheat grass (*Bromus tectorum*) understory. The team was concerned about the potential for a fire to carry through the shadscale community by the Cheat grass. The general condition of the Biotic community at Site #4 was determined to be in good condition, with a concern over the Cheat grass.

STANDARD#4

BLM will apply and comply with water quality standards established by the State of Utah (R.317-2) and the Federal Clean Water and Safe Drinking Water Acts. Activities on BLM lands will fully support the designated beneficial uses described in the Utah Water Quality Standards (R.317-2) for surface and groundwater.

RESOURCE CONDITIONS WITHIN THE ALLOTMENT MEET THE STANDARD? Yes

Rationale:

The allotment is not located near a water body, water source, or wetland.

PART 2. ARE LIVESTOCK A CONTRIBUTING FACTOR TO NOT MEETING THE STANDARDS?

Standard #1

No. The German Valley Allotment is currently meeting the standard for Soil Stability and Hydrologic Function.

Standard #2

No. This standard does not apply to the German Valley allotment.

Standard #3

No. The German Valley Allotment is currently meeting the standard for Biotic Diversity.

The Rangeland Health Assessment team found that Site #4 was "At Risk" to fire because of the Cheat grass understory. The ecological site for Site #4 is a Desert Gravelly Loam (Shadscale), important native species located on the site were Shadscale (Atriplex confertifolia), Indian ricegrass (Oryzopsis hymenoides), Bottlebrush squirreltail (Sitanion hystrix), and Bud sage (Artemisia spinosa). These plant species were present on the study site along with Cheat grass and Halogeton (Halogeton glomeratus), both invasive non-native species. The condition of the native plant species were determined to be in good condition, but the Biotic Integrity of the study site was considered to be "At Risk" to burn because of the Cheat grass component in the understory.

The "At Risk" condition on study Site #4 is not due to the current livestock management practices.

Standard #4

No. This standard does not apply to the German Valley allotment.

PART 3. GUIDELINES FOR GRAZING MANAGEMENT TO IMPLEMENT

The German Valley Allotment is currently meeting the standards for all Rangeland Health assessments. Site #4 was determined to be "At Risk" due to Cheat grass (*Bromus tectorum*) as an understory component. It was determined that the "At Risk" condition of Site #4 was due to historic livestock overuse and not the current livestock grazing management. Therefore, Guidelines for Grazing Management to Implement are not required at this time.

Torrado for Glenn A. Carpenter

Salt Lake Field Office Manager

REFERENCES

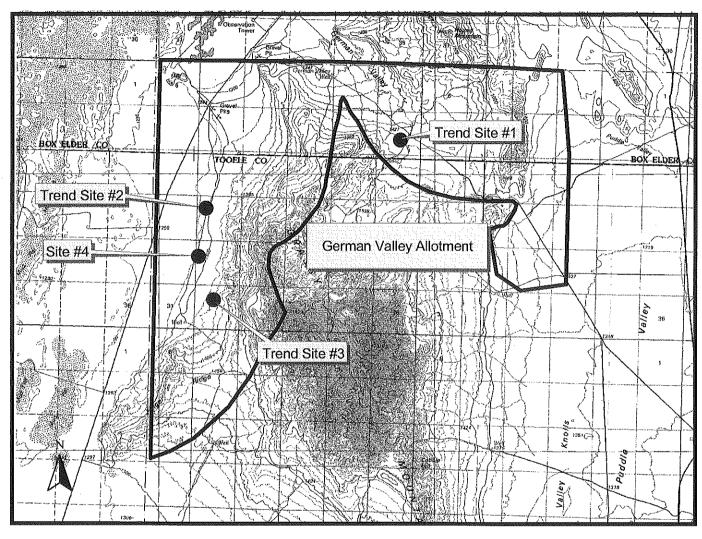
USDA-NRCS. 1997. Soil Survey of Tooele Area, Utah. US Government Printing Office:

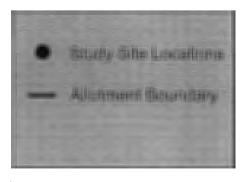
USDA-SCS. 1994. Range Site Descriptions (059). Section II-E. Soil Conservation Service.

USDI-BLM. 2000. <u>Rangeland Health Assessment Worksheets</u>. Salt Lake Field Office. Unpublished field data.

Utah-DEQ. 2000. <u>Utah's 303(d) List of Impaired Waters</u>. Utah Department of Environmental Quality. Salt Lake City, Utah.

German Valley Allotment





Bureau of Land Management Salt Lake Field Office 2370 South 2300 West Salt Lake City, UT 84119

This product may not meet BLM standards for accuracy and content. Different data sources and input may cause misalignment of data layers.



Rangeland Health Evaluation Summary Worksheet

	_	ns require completion, other informatian is optional)
State Ut	Office <u>U4-020</u>	Management Unit <u>German Valley</u>
Pasture/Watershed	ID#	Major Land Resource Area
Location (description) _		1/1/211-121
Legal T ,R ,Sec	, 1/4, 1/4 d	or Lat, Long or UTM Coord £32689
Size of Evaluation Area		Photo(s) Taken Yes No 📈
	eaton, Torres	
Ecological Site Descr	+ Loan (Shodscale)	Soil Map Unit Name Toole Fine Sand
Panasland Englacias Sita C	Description and/or Soil/Site Ver	Area of Interest Determination
Surface Texture	•	Surface Texture
Depth: Very Shallow 🔲 Shal	low	Depth: Very Shallow Shallow Moderate Deep (<10") (10"-20") (20"-40") (>40") List diagnostic horizons in profile and depth
13	Torsie ond depart	1 3
2 4 .	,	2 4
Parent Material	Slope Z % Elevotion 46	K ft Tapographic Pasitian Aspect W-NW
Avg Annual Precip	Recent Weather (last 2	years) Drought Normal Wet
Describe wildlife and live	stock use and recent disturba	nces Sheep all othert, important antel = pe
		go gullies associated wilroad west of site.
+ This trend sit	e was not four	d. We did a site in the general
avia.		

Species Dominance Worksheet

The most common species, noxious weed:	s (state-listed plants), invasive natives, invasive exotics
(non-noxious) are ranked according to d	ominance using cover 🗌 or weight 🔲 .
Dominant Species on Site	Noxious Weeds
1 Shadscale	1 None
2 Salina Wildry	2
3 <u>ORHY</u>	3
4	
Invasive Natives	Invasive Exotics
1 Nove	1 BRTE
2	2 Bur Buttercuf
3	3
Part 2 (Optional) Dominant Species by	
The most common species are ranked acc	cording to dominance using cover 🗌 or weight 🗌 by life fo
·	
Annual Grasses	Annual Forbs
Annual Grasses	Annual Forbs
Annual Grasses 1 BRTE 2 ———————————————————————————————————	Annual Forbs 1 Lapidium 2 Halogeton
Annual Grasses 1 BRTE 2 ———————————————————————————————————	Annual Forbs 1 Lapidium 2 Halogeta
Annual Grasses 1 BRTE 2	Annual Forbs 1 Lepiolium 2 Halogeton 3 Burr Buttercup
Annual Grasses 1 BRTE 2 3 Perennial Grasses	Annual Forbs 1 Lepidium 2 Halogeta 3 Burr Buttercup Perennial Forbs
Annual Grasses 1 BRTE 2 3 Perennial Grasses 1 Salma wilder POSE	Annual Forbs 1 Lepidium 2 Halogeton 3 Burr Buttercup Perennial Forbs 1 Gobernallow
Annual Grasses 1 BRTE 2 3 Perennial Grasses 1 Salina wildrug POSE 2 ORHY KRLA	Annual Forbs 1 Lepidium 2 Halogeton 3 Burr Butter cup Perennial Forbs 1 Globernallow 2
Annual Grasses 1 BRTE 2 3 Perennial Grasses 1 Salina wildrup POSE 2 ORHY KRLA	Annual Forbs 1 Lepidium 2 Halogeton 3 Burr Buttercup Perennial Forbs 1 Gobernallow
Annual Grasses 1 BRTE 2 3 Perennial Grasses 1 Salma wilding POSE 2 ORHY KRLA 3 SIHY ERNE Shrubs and Trees	Annual Forbs 1 Lepidium 2 Halogeton 3 Burr Buttercup Perennial Forbs 1 Gobernallow 2 3 Succulents
Annual Grasses 1 BRTE 2 3 Perennial Grasses 1 Solina wildly POSE 2 ORHY KRLA 3 SIHY ERNE Shrubs and Trees 1 ARNO ARSP MKTR	Annual Forbs 1 Lepidium 2 Halogeton 3 Burr Butter cup Perennial Forbs 1 Gobernallow 2 3
Annual Grasses 1 BRTE 2 3 Perennial Grasses 1 Salma wilding POSE 2 ORHY KRLA 3 SIHY ERNE Shrubs and Trees	Annual Forbs 1 Lepidium 2 Halogeton 3 Burr Buttercup Perennial Forbs 1 Gobernallow 2 3 Succulents
Annual Grasses 1 BRTE 2 3 Perennial Grasses 1 Solina Wildre POSE 2 ORAY KRLA 3 SIHY ERNE Shrubs and Trees 1 ARNO ARSP AKTR 2 ATO GUGA TESP	Annual Forbs 1 Lepidium 2 Halogeton 3 Burr Buttercup Perennial Forbs 1 Gobernallow 2 3 Succulents 1 Now 2
Annual Grasses 1 BRTE 2 3 Perennial Grasses 1 Solina wildre POSE 2 ORHY KRLA 3 SIHY EPNE Shrubs and Trees 1 ARNO ARSP MKTR 2 ATO GUSA TESP	Annual Forbs 1 Lepidium 2 Halogeton 3 Burr Buttercup Perennial Forbs 1 Gobernallow 2 3 Succulents 1 Now 2
Annual Grasses 1 BRTE 2 3 Perennial Grasses 1 Salma Militar POSE 2 ORHY KRLA 3 SIHY ERNE Shrubs and Trees 1 APNO ARSP MKTR 2 ATO GUSA TESP 3 CHNA CHNI	Annual Forbs 1 Lepidium 2 Halogeton 3 Burr Burtercup Perennial Forbs 1 Gobernallow 2 3 Succulents 1 Now 2 3
Annual Grasses 1 BRTE 2 3 Perennial Grasses 1 Salma wilding POSE 2 ORHY KRLA 3 SIHY ERNE Shrubs and Trees 1 ARNO ARSP AKKR 2 ATO GUSA TESP 3 CHINA CHNI Biological Crust (rate by companent not	Annual Forbs 1 Lepidium 2 Halogeton 3 Burr Butter Cup Perennial Forbs 1 Adbernation 2 3 Succulents 1 Now 2 3 species, e.g., lichen, moss, or algae)
Annual Grasses 1 BRTE 2 3 Perennial Grasses 1 Solina Milital POSE 2 ORHY KRLA 3 SIHY EPNE Shrubs and Trees 1 ARNO ARSP MKTR 2 ATO GUGA TESP 3 CHNA CHNI	Annual Forbs 1 Lepidium 2 Halogeton 3 Burr Butter cup Perennial Forbs 1 Gobernallow 2 3 Succulents 1 Now 2 3 species, e.g., lichen, moss, or algae)

Functional/Structural Groups Worksheet

State VT Office 020	Ecological Site	Site ID
Observer(s) Catos, Henton,	Torres Date	8/20/02

Functional/Str	uctural Groups	Species List for Functional/Structural Groups	
Name	Polential	Aclual ²	Plant Names
A. Forbs		10	
P. Forbs	15	a provincia de la constanta de	
Shrub	40	45	
A. Forbs P. Forbs Shrub P. Grass A. Grass	45	36	
A. Grass	0	8	
,			
Biological Crust ³			

Indicate whether each "structural/functional group" is a Dominant (D) (roughly 41-100% composition), a Subdominant (S) (roughly 11-40% composition), a Minor Component (M) (roughly 3-10% composition), or a Trace Component (T) (<3 % composition) based on weight or cover composition in the area of interest (e.g., "Actual²" column) relative to the "Potential¹" column derived from information found in the ecological site description and/or at the ecological reference area.

Biological Crust³ dominance is evaluated solely on cover not composition by weight.

Cover Worksheet

State	_ Office _ OZO	Ecological Site	
Observer(s) Gates, H	ceton, Torres	Date <u>8/20/07</u> Site II)

	-	COVER CLASSES (% Canopy)							
	LIFE FORMS	0	0.1	2-5	6-15	16-30	31-50	51 <i>-</i> 75	76-100
	I - Grass								
1	Annual			4					
HW	Native Perennial					20	1		
, , ,	Exotic Perennial	0							
	II - Forb						1919		
<i>11</i> \	Annual				8				
1	Perennial								
1141	III - Shrub				(1-1-124 Me)	20			
	IV - Tree								
	V - Succolent				12.55				
	VI - Biological Grust								
	% GROUND COVER ²	0	1.0	2-5	6-15	16-30	31-50	51-75	76,100
	1 - Vascular Plants							53	
Į\	II - Standing Dead Vegetation		Catha Thropha		8				
li	III - Litter (in contact with the soil surface)				8		10.00		
Ì	IV - Biological Crust				10				
1	V - Rock/Gravel			4	in				
LL!	VI - Bare Ground					17	71554		

¹ Life Forms Cover - Record multiple canopy cover classes; total plant canopy may exceed 100%. Small openings (less than 2" in diameter) are included as cover.

Notes: Include source of cover data (e.g., estimates or measurements)

² **Ground Cover** - Category I is an estimate of total vascular plant cover; overlapping canopies are counted as only **one** canopy (record life form with first point of contact). Total vascular plant cover (I) together with the sum of cover in Categories II-VI should total to approximately 100%.

Part 2. Indicator Rating

	Departure from Ecological Site Description Ecological Reference Area(s)					ion/
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	Nonerto Slight
S,H	1. Rills					
Comments	:					
S,H	2. Water Flow Patterns				X	geras) aw
Comments	:					
S,H	3. Pedestals and/or Terracettes				Х	
Comments	:: Past pedesfaling					
S,H	4. Bare Ground					
Comments	::					
S,H	5. Gullies					
Comments	::					
S	6. Wind-Scoured, Blowouts, and/or Deposition Areas			200		
Comments						*
Н	7. Litter Movement					
Comments	:: Effer doesn't seem to be movin	re muc	h.			
S,H,B	8. Soil Surface Resistance to Erosion					10
Comments	: Adequate veg cover, bio, crust					
S,H,B	9. Soil Surface Loss or Degradation					
Comments	s:		·•			-
Н	 Plant Community Composition and Distribution Relative to Infiltration and Runoff 					
Comments	s:					
S,H,B	11. Compaction Layer					
Comments	s:					
В	12. Functional/Structural Groups					
Comment	si Slight & in P. Opens				:	
В	13. Plant Mortality/Decadence					1.0
Comment	5 Shrabs seem to be digine off w/g	oad rece	wilvar	4		
H,B	14. Litter Amount					
Comments	s:					
В	15. Annual Production					
Comments	studine good.			17.11.41		
В	16. Invasive Plants					
Comment	s: BRITE & burr buttering					
	17. Reproductive Capability of Perennial Plants					1.32.
Comment	s: Also looking good			2000		

Part 3. Summary

A. Indicator Summary

Departure from Ecological Site Description/ Ecological Reference Area(s)

	Rangeland Health Attributes	Moderate Extreme to Extrem	A State of the sta	Slight to Moderate	None to: Slight Σ
s	Soil/Site Stability (Indicators 1-6, 8, 9 &11)			Z	9
Н	Hydrologic Function (Indicators 1-5, 7-11 & 14)			Z	11
В	Biotic Integrity (Indicators 8-9 & 11-17)	en e		Z_	9

B. Attribute Summary - Check the category that best fits the "preponderance of evidence" for each of the three ottributes relative to the distribution of indicator ratings in the preceding Indicator Summary table.

Attribute	《经验》	derate xtreme Moderate	Slight to Moderate	blede ie Blight
Soil/Site Stability Rationale:				
Hydrologic Function Rotionale:				
Biotic Integrity Rotionale:			X	

Attribute Rating- Check one in each row

	The state of the s	The state of the s	
Soil/Site Stability	Not Stable———	At Risk——D	Stable
	Not lutact ——— 🗆	At Risk ——	Intact ———————————————————————————————————
The state of the s	Non-Functioning—	At Risk ——	Functioning—— M

Comments on Indicator(s) on other side of this page

Appendix 6

Biotic is intact, but cheatgrass & burn butterap. are present.

Page 2

T-2

Rangeland Health Evaluation Summary Worksheet

Part 1. Area of Interest Do	c umentation (Bold iter	ns require completion, other information is optional)
StateC	office UT-040	Management Unit <u>German Valley</u>
Pasture/Watershed	ID#	Major Land Resource Area
Location (description)		N114883495
Legal T ,R ,Sec	, 1/4, 1/4	or Lat, long or UTM Coord E.105 3717
Size of Evaluation Area		Photo(s) Taken Yes X No
Observer(s) Heaton, Gat	es, Torres	Date 8/20/02
Ecological Site Desert	Flot (Shadscal	Soil Map Unit Name Skunpal SH Loon
	Soil/Site Ve	rification — # 50
Rangelond Ecological Site Descrip Surface Texture	tion and/or Soil Survey	Area of Interest Determination Surface Texture
Depth: Very Shallow 🗌 Shallow 🗍	Maderate 🗌 Deep 🔲	Depth: Very Shollow Shallow Moderate Deep
(<10") (10"-20") List diagnostic horizons in profile of	• • •	(<10") (10"-20") (20"-40") (>40") List diagnostic horizons in profile and depth
13	•	1 3
2 4		2 4
-		ft Topographic Position Aspect NA
Avg Annual Precip Re	ecent Weather (last 2	years) Drought X Normal Wet
Describe wildlife and livestock antelope winter habits	use and recent disturba	inces Sheep allotment, possible
Describe offsite influences or		Citary bambing!

Species Dominance Worksheet

The most common species, noxious weeds (state-listed plants), invasive natives, invasive exotics

Part 1 (Required)

(non-noxious) ore ranked according to a	lominance using cover or weight .
Dominant Species on Site 1 Kochia 2 ATOO	Noxious Weeds 1 None 2
3 Saltbush	3
Invasive Natives	Invosive Exotics
3	2 Russan Thistle
Part 2 (Optional) Dominant Species be The most common species are ranked ac Annual Grasses 1 BFT 6 2	Annual Forbs 1 Lepidium Russian Kristle 2
Perennial Grasses 1 SIHY 2 3	2
Shrubs and Trees	Succulents 1 Nove
2 Basin saltbush 3 Kochia amaricana	
Biological Crust (rate by component no	· ·

Functional/Structural Groups Worksheet

State Office	60 Ecologic	cal Site	Site ID
Observer(s) Gales, Hea	for Torres	Date 8/20/02	

Functional/Structure	d Groups		Species List for Functional/Structural Groups
Name	Potential	Actual ²	Plant Names
P. Grass	10	.	
A. Grass	0	١	
A. Grass P. Forb A. Forb Shrub	55	3	
A. Forb		5	
Shrub	85	90	
			·
Biological Crust ³			

Indicate whether each "structural/functional group" is a Dominant (D) (roughly 41-100% composition), a Subdominant (S) (roughly 11-40% composition), a Minor Component (M) (roughly 3-10% composition), or a Trace Component (T) (<3 % composition) based on weight or cover composition in the area of interest (e.g., "Actual²" column) relative to the "Potential¹" column derived from information found in the ecological site description and/or at the ecological reference area.

Biological Crust³ dominance is evaluated solely on cover not composition by weight.

Cover Worksheet

•			CO	VER CLASSI	S (% Can	ору)		
LIFE FORMS	0	0-1	2-5	6-15	16-30	31.50	51 -7 5	:76-100
I - Grass								
Annual		T						
Native Perennial		T						
Exotic Perennial	0			etin fisk spr		407.45		
II - Forb								
Annual			5			- CVC		
Perennial			4					
All - Shrub				- Tribe		32		
IV - Tree	0	espeljilis						
V - Succulent	0					Table and the		
VI - Biological Grust		STATE OF STATE OF				# F (PE) (PE)		
% GROUND COVER ²	0	0-1	2-5	6-15	16-30	31-50	51 -7 5	76-100
1 - Vascular Plants		W-0.48				4		
II - Standing Dead Vegetation		interporture	,	12	-	125		
III - Litter (in contact with the soil surface)		ALTERATED OF THE		9		194		
IV - Biological Crust		77 77 17 19 40				20		
V - Rock/Gravel	0							
VI - Bare Ground				- 1	18	- 105E02		

Notes: Include source of cover dato (e.g., estimates or measurements)

¹ **Life Forms Cover** - Record multiple conopy cover closses; total plant canopy may exceed 100%. Small openings (less than 2" in diameter) are included as cover.

² Ground Cover - Category I is an estimate of total vascular plant cover; overlapping canopies are counted as only one canopy (record life form with first point of contact). Total vascular plant cover (I) together with the sum of cover in Categories II-VI should total to approximately 100%.

Part 2. Indicator Rating

		Dep	orture from Ecologic	Ecological S al Reference	ite Descript Area(s)	ion/
Attribute	Indicators	-Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
s,H	1. Rills					
Comment	5:					
S,H	2. Woter Flow Potterns	1.200.71				
Comment	s: Sheep trailing					
S,H	3. Pedestols and/or Terracettes					
Comment	5:					
S,H	4. Bare Ground	12 PS (41)			X	
Comment	s. Slightly more than expecte	du di	ue to st	ight lac	KOF U	ez.
S,H	5. Gullies					44 A.A
Comment	s:					
S	6. Wind-Scoured, Blowouts, and/or Deposition Areas	F17 - 5 15 1 1 1		7777		
Comment	s: .					
Н	7. Litter Movement					
Comment	s:					
S,H,B	8. Soil Surface Resistance to Erosian					2 7
Comment	s: Good due to ver cover & bio. cre	nst.		,		
S,H,B	9. Soil Surface Loss of Degradation					
Comment	s:					
Н	10. Plont Community Composition and Distribution Relative to Infiltration and Runoff					
Comment	5:					
S,H,B	11. Compaction Layer					
Comment	5:					,
В	12. Functional/Structurol Groups				\perp_{X}	
Comment	s: Grass component almost completel	y absen	tuslight	13 bachi	y Shao	Iscale
В	13. Plant Mortality/Decadence			$\langle \cdot \rangle$		
Comment	s: Dead Plants mainly shadscale	· wen-a	se die	-ont		
H,B	14. Litter Amount					
Comment	s:					
В	15. Annual Production					
Comment	s:					
В	16. Invasive Plants				X	
Comment	s:					
В	17. Reproductive Capability of Perennial Plants	12.2				12 7
	s: Fairly good recruitment & produc		o'da in	1	1	-

Part 3. Summary

A. Indicator Summary

Departure from Ecological Site Description/ Ecological Reference Area(s)

	Rangeland Health Attributes	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight	Σ
S	Soil/Site Stability (Indicators 1-6, 8, 9 &11)				PER		9
Н	Hydrologic Function (Indicators 1-5, 7-11 & 14)				g and a second		11
В	Biotic Integrity (Indicators 8-9 & 11-17)				2		9

B. Attribute Summory - Check the category that best fits the "prepanderance of evidence" for each of the three attributes relative to the distribution of indicator ratings in the preceding Indicator Summary table.

Attribute	Extreme	Moderate ta Extreme	Moderate	Slight to Moderate	Mei Mint
Soil/Site Stability Rationale:					
Hydrologic Function Rationale:					
Biotic Integrity Rationale:				X	17.

Attribute Rating- Check one in each row

·	2 3 4 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	and the second s	Particular de la company de la	
Soil/Site Stability	Not Stable——	At Risk	Stable	
Biotic Integrity	Not Intact	At Risk —□	Intact ————	
	Non-Functioning-	At Risk ——D	Functioning	

Comments on Indicator(s) on other side of this page

Appendix 6

Biotic - Uching grass component

Page 2

Rangeland Health Evaluation Summary Worksheet

Part 1. Area of Interest	Documentation (Bold ite	ms require completion, other information is optional)
State UT	Office Ut-620	Management Unit Garmon Valle/
Posture/Watershed	1D#	Majar Land Resource Area
Location (description)		N:14869743
Legol T ,R ,Sec _	, 1/4, 1/4	or Lat ,Long or UTM Coord E11056945
Size of Evaluation Area _		Photo(s) Taken Yes X No
Observer(s) Gates	Heaton, Torres	Date 8/20/02
Ecological Site Desert	Cravely (Shadsrale	Date 8/20/02 Soil Map Unit Name Skyn pah Sit Lan
Control of the contro	Soil/Site Ve	rification #56
Rangeland Ecological Site De Surface Texture	scription and/or Soil Survey	Area of Interest Determination Surface Texture
Depth: Very Shallow Shallo	w Moderate Deep D'' (20"-40") (>40")	Depth: Very Shallow Shallow Moderate Deep (<10") (10"-20") (20"-40") (>40")
List diagnostic horizons in pro		List diagnostic horizons in profile and depth
13	•	1 3
24		2 4
Parent Material	Slope 1 % Elevation 4	746 ft Topographic Position Aspect
		years) Drought X Normal — Wet —
	ock use and recent disturbe	onces Sheep all otment, some livestid
Describe offsite influence	es on area of interest	

Species Dominance Worksheet

Part 1 (Required)

The most common species, noxious weeds (sto	te-listed plants), invosive natives, invasive exotics
(non-noxious) are ranked occording to domin	ance using cover 🖾 or weight 🗌 .
Dominant Species on Site 1 ATCO 2 ARSP 3 ORHY 4 Wichia Scoparia	2
Invasive Natives 1	- 2 Halogeran
Part 2 (Optional) Dominant Species by Life The most common species are ranked occordi Annual Grasses 1 BRTE 2	Annual Forbs 1 Hologator
Perennial Grasses 1 ORMY Salina Wildrye 2 SIHV 3 POSE	Perennial Forbs 1 Shagy fleabane 2 ———————————————————————————————————
Shrubs and Trees 1 ATCO ARNO 2 Kochia Scoparia 3 ARSP	Succulents 1
Biological Crust (rate by component not spec	cies, e.g., lichen, moss, or algae) –

Functional/Structural Groups Worksheet

State _	MT	Office	020	Ecological Site		Site ID
Observ	er(s) <u>6</u> 6	ctes, He	caton, To.	rres	. Date_	8/20/02

Functional/Structur	al Groups		Species List for Functional/Structural Groups
Name	Potential ⁾	Actual ²	Plant Names
A. Forb		8	
A. Forb P. Forb Shrub A. Grass P. Grass	/10		
Shrub	50	70	
A. Corass	6	d. S. Constant	
P. Grass	46	10	
Biologicol Crust ³			

Indicate whether each "structural/functional group" is a Dominant (D) (roughly 41-100% composition), a Subdominant (S) (roughly 11-40% composition), a Minor Component (M) (roughly 3-10% composition), or a Trace Component (T) (<3 % composition) based on weight or cover composition in the area of interest (e.g., "Actual²" column) relative to the "Potential¹" column derived from information found in the ecological site description and/or at the ecological reference area.

Biological Crust³ dominance is evaluated salely on cover not composition by weight.

Cover Worksheet

:	StateOffice		20	Fc	ological	Site			
(Observer(s) Gates, Heat	on,	OVY Dat	e <u>8/</u>	20/07	Site	e ID		
	· .			CO	VER CLASSI	ES (% Con	юру)		
	LIFE FORMS	0	0-1	2-5	6-15	16-30	31-50	51-75	76-100
	I-Grass								
)	Annual								
١	Native Perennial				12				
	Exotic Perennial	0							
	II - Forb								
1111	Annual				12				
	Perennial								1 (200) But 1 (00) Co.
#	III Shrubara				in Market	30	1 175		
	IV - Tree	0							
	VSucculent	0			1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		145-966	-	
	VI - Biological Crust								
	% GROUND COVER ²	0	0-1	2-5	6-15	16-30	31-50	51-75	Z6-100
	I - Vascular Plants		70 W ME					55	
١	II - Standing Dead Vegetation		it theres.	4	To an art of				
1	III - Litter (in contact with the soil surface)		The state of the s	4			ALS.		
111	IV - Biological Crust		The second section of the second seco	 -	14.		11.534 5.43.4		erio de la compaña de la compa
M.	V - Rock/Gravel		22 44 46		\c				

Notes: Include source of cover data (e.g., estimates or measurements)

VI - Bare Ground

¹ Life Forms Cover - Record multiple canopy cover classes; total plant conopy may exceed 100%. Small openings (less than 2" in diameter) are included as cover.

² **Ground Cover** - Cotegory I is on estimate of total vascular plant cover; overlapping canopies are counted as only **one** canopy (record life form with first point of contact). Total vascular plant cover (I) together with the sum of cover in Categories II-VI should total to approximately 100%.

Part 2. Indicator Rating

		Dep		Ecological S al Reference		ion/
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S,H	1. Rills					
Comment	s:					7
S,H	2. Water Flow Potterns				X	e jakon j Parangan jakon
Comment	s:					
S,H	3. Pedestals and/or Terrocettes					
Comment	s:					
S,H	4. Bare Ground			1173		
Comment	s:					
S,H	5. Gullies					
Comment	s: Natural diainages					
S	6. Wind-Scoured, Blowouts, and/or Deposition Areas					
Comment	s:					
H	7. Litter Movement					
Comment	s:					
S,H,B	8. Soil Surface Resistonce to Erosion					
Comment	s: Good veg, cover a Rock/gr	avel. 6	ould use	TP.gn	rass	
S,H,B	9. Soil Surface Loss or Degradation					
Comment	s:					
Н	10. Plont Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comment	s: Missily agrass in interspaces	5				
S,H,B	11. Compaction Layer					
Comment	s:					
В	12. Functional/Structural Groups				X	
Comment	s: Missing pograss, Shruss & Haloget	on seem	-to be f	filling in	forgr	ass,
В	13. Plont Mortality/Decadence			<u> </u>	X	
Comment	s: Shakcale is decadent					
Н,В	14. Litter Amount					
Camment	s:					/
В	15. Annual Production					
Comment	is:					
В	16. Invasive Plants			$-\mathbf{X}$		
Commen	is: Halogeton in interspeces & dis	turbed si	tes	,		
В	17. Reproductive Capability of Perennial Plants					
Comment		113997				

Part 3. Summary

A. Indicator Summary

Departure from Ecological Site Description/ Ecological Reference Area(s)

	Rangeland Health Attributes	The state of the state of the state of the state of	rate reme Moderate	Slight to Moderate	None tou Slight Σ
S	Soil/Site Stability (Indicators 1-6, 8, 9 &11)			-certiff	9
Н	Hydrologic Function (Indicators 1-5, 7-11 & 14)			2	11
В	Biotic Integrity (Indicators 8-9 & 11-17)			Z	9

B. Attribute Summary - Check the category that best fits the "preponderonce of evidence" for each of the three attributes relative to the distribution of indicator ratings in the preceding Indicator Summary table.

Attribute	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	ikisi ir Mirit
Soil/Site Stability Rationale:					
Hydrologic Function Rationale:					
Biotic Integrity Rotionale:				X	

Attribute Rating- Check one in each row

		The second secon	
Soil/Site Stability	Not Stable——	At Risk——D	Stable——— 🗵
	Not Intact ——— 🗆	At Risk	Intact ———————————————————————————————————
DIVIN BUSCESSA	Non-Functioning-	At Risk	Functioning——
	47	Q	,

Comments on Indicator(s) on other side of this page

Appendix 6	Botic lacking perennial grass. Should be halogeton seem to be filling in where grasses should be. Grass spp. are present, but not in the correct composition.	Page 2
	are present, but not in the correct composition.	

Ste#4

Rangeland Health Evaluation Summary Worksheet

Part 1. Area of Interest Documentation (Bold iter	
State Office Ut- 020	Management Unit German Valley
Pasture/WatershedID#	Major Land Resource Area
Location (description)	N: 14874514
Legal T ,R ,Sec , 1/4, 1/4	or Lat, long or UTM Coord $arepsilon$: 105 7300
Size of Evaluation Area	Photo(s) Taken Yes No
Observer(s) Gates, Heaton, Torres	Date 8/20/07
Observer(s) Gates, Heaton, Torres Ecological Site Descrit Gracely Loam (Shade	Soil Map Unit Name CLAT ADAN
Soil/Site Ve	rification
Rongeland Ecological Site Description and/or Soil Survey	Area of Interest Determination
Surface Texture	Surface Texture
24	2 4
Porent Moterial Slope Z % Elevotion 45	
Avg Annual Precip Recent Weather (last 2	
Describe wildlife and livestock use and recent disturbed habitant.	
Describe offsite influences on area of interest	•

Species Dominance Worksheet

Part 1 (Required)

The most common species, noxious weeds (stote-liste	d plants), invasive natives, invasive exotics
(non-noxious) ore ranked according to dominance	using cover 🛛 or weight 🗌 .
Dominant Species on Site 1 ATCO 2 ORMY 3	Noxious Weeds 1
Invasive Natives 1 None 2 3	Invasive Exotics 1 BRTE 2 Halacton 3 Lepidium
Part 2 (Optional) Dominant Species by Life Form The most comman species are ranked according to a Annual Grasses 1 BRTC 2	Annual Forbs 1 Halegeton 2 Legidium
Perennial Grasses 1 ORTY 2 Salina Wildrye 3 SIHY	Perennial Forbs Spheralan Pussy tres 3
Shrubs and Trees 1 JUDS ARTIZ CHVI 2 ATCO Tetradymia EPNE 3 GUSA ARSP	Succulents 1 Nove 2 3
Biological Crust (rate by component not species, e. 1 Black Crust	.g., lichen, moss, or algae)

Functional/Structural Groups Worksheet

State	Office	020	Ecological Site		Site ID
Observer(s)	Gates	Heaton,	Torres	. Date_	8/20/02

Functional/Structure	ıl Groups	Species List for Functional/Structural Groups	
Nome	Potential	Actual ²	Plant Names
P. Grass	40	25	
A. Grass	0	15	
P. Forb	510		
1. Forb		2	
P. Grass A. Grass P. Forb A. Forb Shrub	50	57	
Biological Crust ³			

Indicate whether each "structural/functional group" is a Dominant (D) (roughly 41-100% composition), a Subdaminant (S) (roughly 11-40% composition), a Minor Component (M) (roughly 3-10% composition), or a Trace Component (T) (<3 % composition) based on weight or cover composition in the area of interest (e.g., "Actual²" column) relative to the "Potential¹" column derived from information found in the ecological site description and/or at the ecological reference area.

Biological Crust³ dominance is evaluated solely on cover not composition by weight.

Cover Worksheet

9	State <u>NT</u> Office Observer(s) Gates, Heaton, To	0	2.03	E	cological	Site			
•	Observer(s) Gates, Heaton, To	rus	Dat	e 8/	20/02	Site	e ID		
	_	COVER CLASSES (% Canopy)							
	LIFE FORMS ¹	0	0.1	2-5	6-15	16-30	31-50	51-75	76-100
200000000000000000000000000000000000000	I · Grass								
11	Annual					16			
1	Native Perennial					24			
	Exotic Perennial	0							
1	II- Forb								
ĺ	Annual			2					
ĺ	Perennial						- 176.13		
V	III - Shrub - COA COA				Part of a style	20			
ļ	IV - Tree								
	V - Succulent	0			A SECTION OF				
Į	VI - Biological Crust								
	% GROUND COVER ²	0	0.1	2-5	6-15	16-30	31-50	51-75	76-100
	I - Vascular Plants		A STATE OF THE STA					63	1-204
	II - Standing Dead Vegetation			5	The special section of the section o				
11					6				
	IV - Biological Crust		The state of the s		8		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	V - Rock/Gravel				14				

Notes: Include source of cover data (e.g., estimates or measurements)

VI - Bare Ground

¹ Life Forms Cover - Record multiple canopy cover classes; total plant canopy may exceed 100%. Small openings (less than 2" in diameter) are included as cover.

² **Ground Cover** - Category I is an estimate of total vascular plant cover; overlapping canopies are counted as only **one** canopy (record life form with first point of contact). Total vascular plant cover (I) together with the sum af cover in Categories II-VI should total to approximately 100%.

Part 2. Indicator Rating

		Dep	arture from Ecologic	Ecological S al Reference	ite Descript Area(s)	ion/	
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight.	
S,H	1. Rills						
Comment	s:						
S,H	2. Water Flow Patterns		_				
Comment	s:				,		
S,H	3. Pedestols and/or Terracettes				X		
Comment	s: Pedostals in waterflow Path	cons					
S,H	4. Bare Ground						
Comment	s: as expected						
s,H	5. Gullies				X		
Comment	s: Vegetated - not active						
S	6. Wind-Scoured, Blowouts, and/or Deposition Areas						
Comment	s: .					Program Strategy and August May College and Ford	
Н	7. Litter Movement	7			X		
Comment	s:						
S,H,B	8. Soil Surface Resistance to Erosion						
Comment	s: Good veg : cover, rode/grave	1, coulde	Sc 17.90	rass in inte	rspaces		
S,H,B	9. Soil Surface Loss or Degradation						
Comment	s:					\	
Н	10. Plant Community Composition and Distribution Relative to Infiltration and Runoff						
Comment	is:						
S,H,B	11. Compaction Layer						
Commen	is:						
В	12. Functional/Structural Groups					7.5	
Commen	s: lacting some P. grass, P. for	bs also	1	parailinaki ingga pang			
В	13. Plant Mortality/Decadence				L X		
Commen	ts:				M3		
Н,В	14, Litter Amount						
Commen	ts:	Manual State of the State of th		E Company Street, and the Company	Are I		
В	15. Annual Production						
Comments:							
В	16. Invasive Plants		X				
Comments: Cheat ograss - common in understory							
В	17. Reproductive Capability of Perennial Plants	Section of Control Control Control of Contro					
Commen	ts:						

Part 3. Summary

A. Indicator Summary

Departure from Ecological Site Description/ Ecological Reference Area(s)

	Rangeland Health Attributes	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None is Slight	Σ
S	Soil/Site Stability (Indicators 1-6, 8, 9 & 11)				3		9
Н	Hydrologic Function (Indicators 1-5, 7-11 & 14)				4		11
В	Biotic Integrity (Indicators 8-9 & 11-17)		١		1		9

B. Attribute Summary - Check the category that best fits the "prepanderance of evidence" for each of the three attributes relative to the distribution of indicator ratings in the preceding Indicator Summary table.

Attribute	Committee the management of	Moderate o Extreme	Modernie	Slight to Moderate	Marene Blight
Soil/Site Stability Rationale:					
Hydrologic Function Rationale:					
Biotic Integrity Rationale:				X	j.

Attribute Rating- Check one in each row

Soil/Site Stability Not Stable	·		the state of the s	A A
Biotic Integrity Not Intact — At Risk — Intact — Functioning — At Risk — Intact — Biotic Integrity	Soil/Site Stability	Not Stable———	At Risk	Stable
Die G A. Dieb. C Eurocioning		Not lotact	At Risk —	Intact ————O
(Workershor Hill Hill Hill Hill Hill Hill Hill Hil		Non-Functioning-	At Risk ——	Functioning——

Comments on Indicator(s) on other side of this page

Appendix 6

Biotic community seems to be so in good condition. But presence of cheatgrass understory might put it Orisk if fire were to occur.

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