

EAST GRASSY

ALLOTMENT

04025

**M O N I T O R I N G
D A T A**

RANGELAND

HEALTH

ASSESSMENTS

FOR

EAST GRASSY ALLOTMENT

GPS (1) =
J05016A

Trend 1#2

Rangeland Health Evaluation Summary Worksheet

Part 1. Area of Interest Documentation (Bold items require completion, other information is optional)

State UT Office 020 Management Unit EAST GRASSY

Pasture/Watershed _____ ID# FLA2 Major Land Resource Area _____

Location (description) _____

Legal T _____, R _____, Sec _____, _____ 1/4, _____ 1/4 or Lat _____, Long _____ or UTM Coord E:331422 N:4521765

Size of Evaluation Area _____ Photo(s) Taken Yes No _____

Observer(s) Gates, Hardy, Heaton, Torres Date 5-1-02

Ecological Site Desert Loom ¹²⁴ Soil Map Unit Name 69

Soil/Site Verification

Rangeland Ecological Site Description and/or Soil Survey _____ Area of Interest Determination _____

Surface Texture _____ Surface Texture _____

Depth: Very Shallow Shallow Moderate Deep Depth: Very Shallow Shallow Moderate Deep

(<10") (10"-20") (20"-40") (>40") (<10") (10"-20") (20"-40") (>40")

List diagnostic horizons in profile and depth _____ List diagnostic horizons in profile and depth _____

1 _____ 3 _____ 1 _____ 3 _____

2 _____ 4 _____ 2 _____ 4 _____

Parent Material _____ Slope 4 % Elevation 700 ft Topographic Position _____ Aspect E

Avg Annual Precip _____ Recent Weather (last 2 years) Drought Normal _____ Wet _____

Describe wildlife and livestock use and recent disturbances Looks like fairly heavy sheep use on site, important habitat for antelope population in puddle valley

Describe offsite influences on area of interest _____

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Species Dominance Worksheet

Part 1 (Required)

The most common species, noxious weeds (state-listed plants), invasive natives, invasive exotics (non-noxious) are **ranked** according to dominance using cover or weight .

Dominant Species on Site

- 1 ATCO
- 2 ELSA
- 3 _____
- 4 _____

Noxious Weeds

- 1 None
- 2 _____
- 3 _____

Invasive Natives

- 1 None
- 2 _____
- 3 _____

Invasive Exotics

- 1 BRTE
- 2 Burr Buttercup
- 3 _____

Part 2 (Optional) Dominant Species by Life Form

The most common species are ranked according to dominance using cover or weight by life form.

Annual Grasses

- 1 BRTE
- 2 _____
- 3 _____

Annual Forbs

- 35%
- 1 SAIB *Descurainia pinnata* Dandelion
 - 2 SIAL Indian potato
 - 3 ERCI Burr Buttercup

Perennial Grasses

- 1 ELSA SHY 2%
- 2 ORHY 12%
- 3 POSE 2%

Perennial Forbs

- 1 Spherulcea ONION
- 2 Cryptantha
- 3 Phlox

Shrubs and Trees

- 1 ARNO TECA KRLA GRSP
- 2 ATCO CHNA JUOS
- 3 CHV18 GUSA SAVE

Succulents

- 1 Opuntia
- 2 _____
- 3 _____

Biological Crust (rate by component not species, e.g., lichen, mass, or algae)

- 1 Black Crust
- 2 _____
- 3 _____

Functional/Structural Groups Worksheet

State UT Office 020 Ecological Site _____ Site ID T-5#6
 Observer(s) Bates, Hardy, Heaton, Torres Date 5-1-02

Functional/Structural Groups			Species List for Functional/Structural Groups
Name	Potential ¹	Actual ²	Plant Names
A. Grass	0	10	
P. Grass	45	39	
Shrub	40	39	
A. Forb	2	4	
P. Forb	315	8	
400			
500			
600			
Biological Crust ³	Present		

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 UT Office 020 Ecological Site 124
 Observer(s) _____ Date _____ Site ID _____

COVER CLASSES (% Canopy)

LIFE FORMS ¹	0	0-1	2-5	6-15	16-30	31-50	51-75	76-100
I - Grass								
Annual			3					
Native Perennial				12				
Exotic Perennial	0							
II - Forb								
Annual				8	10			
Perennial			4					
III - Shrub				1	20			
IV - Tree		1						
V - Succulent		1						
VI - Biological Crust				6				
% GROUND COVER²								
I - Vascular Plants						50		
II - Standing Dead Vegetation				5				
III - Litter (in contact with the soil surface)				7				
IV - Biological Crust				6				
V - Rock/Gravel			4					
VI - Bare Ground					28			

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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 of cover in Categories II-VI should total to approximately 100%.

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

Part 2. Indicator Rating

Attribute	Indicators	Departure from Ecological Site Description/ Ecological Reference Area(s)				
		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S,H	1. Rills					X
Comments:						
S,H	2. Water Flow Patterns			X		
Comments:						
S,H	3. Pedestals and/or Terracettes			X		
Comments: <i>Pedestaling in interspaces & waterflow patterns... NO terracettes</i>						
S,H	4. Bare Ground					X
Comments:						
S,H	5. Gullies				X	
Comments: <i>Gullie present but is vegetated w/ little erosion</i>						
S	6. Wind-Scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	7. Litter Movement				X	
Comments: <i>Some movement in waterflow patterns</i>						
S,H,B	8. Soil Surface Resistance to Erosion				X	
Comments: <i>lost some stabilizers in the interspaces... mainly grass.</i>						
S,H,B	9. Soil Surface Loss or Degradation				X	
Comments: <i>Some loss in plant interspaces</i>						
H	10. Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments: <i>Due to slope the slight plant changes have slightly affected infiltration & runoff</i>						
S,H,B	11. Compaction Layer					
Comments:						
B	12. Functional/Structural Groups					
Comments:						
B	13. Plant Mortality/Decadence					
Comments:						
H,B	14. Litter Amount					X
Comments:						
B	15. Annual Production					X
Comments:						
B	16. Invasive Plants			X		
Comments:						
B	17. Reproductive Capability of Perennial Plants					X
Comments:						

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)			2	3		9
H	Hydrologic Function (Indicators 1-5, 7-11 & 14)				5		11
B	Biotic Integrity (Indicators 8-9 & 11-17)				2		9

B. Attribute Summary - Check the category that best fits the "preponderance 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	None to Slight
Soil/Site Stability Rationale:				X	
Hydrologic Function Rationale:				X	
Biotic Integrity Rationale:					

Attribute Rating- Check one in each row

Soil/Site Stability	Not Stable <input type="checkbox"/>	At Risk <input checked="" type="checkbox"/>	Stable <input type="checkbox"/>
Biotic Integrity	Not Intact <input type="checkbox"/>	At Risk <input type="checkbox"/>	Intact <input checked="" type="checkbox"/>
Watershed Function	Non-Functioning <input type="checkbox"/>	At Risk <input type="checkbox"/>	Functioning <input checked="" type="checkbox"/>

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

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Appendix 6

Page 2

Soils are @ risk due to erosion & soil movement. Livestock use (sheep) seem to be contributing to soil instability.

Biotic integrity is intact but it should be noted that there is a cheat grass understory & given adequate climactic conditions fire poses a threat to this site. Species diversity is great & if anything this site is just missing some grass in the interspaces.

GPS (2)

Trend 5+6

JOSOLIBA

Rangeland Health Evaluation Summary Worksheet

Part 1. Area of Interest Documentation (Bold items require completion, other information is optional)

State UT Office OZO Management Unit EAST GRASSY

Pasture/Watershed _____ ID# T-546 Major Land Resource Area _____

Location (description) _____

Legal T _____, R _____, Sec _____, _____ 1/4, _____ 1/4 or Lat _____, Long _____ or UTM Coord E: 332130 N: 4517726

Size of Evaluation Area _____ Photo(s) Taken Yes No _____

Observer(s) Satec, Hardy, Heaton, Torres Date 5-1-02

Ecological Site Desert Loam (shadscale)¹²⁴ Soil Map Unit Name 22

Soil/Site Verification

Rangeland Ecological Site Description and/or Soil Survey _____ Area of Interest Determination _____

Surface Texture _____ Surface Texture _____

Depth: Very Shallow Shallow Moderate Deep Depth: Very Shallow Shallow Moderate Deep
(<10") (10"-20") (20"-40") (>40") (10") (10"-20") (20"-40") (>40")

List diagnostic horizons in profile and depth _____ List diagnostic horizons in profile and depth _____

1 _____ 3 _____ 1 _____ 3 _____
2 _____ 4 _____ 2 _____ 4 _____

Parent Material _____ Slope 1 % Elevation 4566 ft Topographic Position _____ Aspect _____

Avg Annual Precip _____ Recent Weather (last 2 years) Drought Normal _____ Wet _____

Describe wildlife and livestock use and recent disturbances very heavy sheep use. The whole East Grassy Allotment serves as important antelope & Raptor habitat

Describe offsite influences on area of interest _____

Species Dominance Worksheet

Part 1 (Required)

The most common species, noxious weeds (state-listed plants), invasive natives, invasive exotics (non-noxious) are **ranked** according to dominance using cover or weight .

Dominant Species on Site

- 1 ATCO
- 2 Bur buttercup
- 3 Cheatgrass
- 4 _____

Noxious Weeds

- 1 N/A
- 2 _____
- 3 _____

Invasive Natives

- 1 N/A
- 2 _____
- 3 _____

Invasive Exotics

- 1 Bur buttercup
- 2 Cheatgrass
- 3 _____

Part 2 (Optional) Dominant Species by Life Form

The most common species are ranked according to dominance using cover or weight by life form.

Annual Grasses

- 1 BTRK
- 2 _____
- 3 _____

Annual Forbs

- 1 Bur buttercup
- 2 HAGL
- 3 SAKA

Perennial Grasses

- 1 ELFL
- 2 Indian ricegrass
- 3 _____

Perennial Forbs

- 1 SPCO
- 2 _____
- 3 _____

Shrubs and Trees

- 1 ATCO
- 2 ARSP
- 3 KRLA

Succulents

- 1 NONE
- 2 _____
- 3 _____

Biological Crust (rate by component not species, e.g., lichen, moss, or algae)

- 1 Black Crust
- 2 B
- 3 _____

Cover Worksheet

State VT Office 020 Ecological Site 124
 Observer(s) Cates, Hardy, Heaton, Tattres Date 5-1-02 Site ID T-546

$\frac{12}{176}$ $\frac{76}{42}$
 " "

COVER CLASSES (% Canopy)

LIFE FORMS ¹	0	0-1	2-5	6-15	16-30	31-50	51-75	76-100
I - Grass								
Annual 8 12				10				
Native Perennial 8				6				
Exotic Perennial	0							
II - Forb								
Annual 16					20			
Perennial 8		1						
III - Shrub 15				12				
IV - Tree	0							
V - Succulent	0							
VI - Biological Crust 4								
% GROUND COVER²								
I - Vascular Plants						49		
II - Standing Dead Vegetation			5					
III - Litter (in contact with the soil surface)					30			
IV - Biological Crust			4					
V - Rock/Gravel	0							
VI - Bare Ground				13				

¹ **Life Farms 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 of cover in Categories II-VI should total to approximately 100%.

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

Part 2. Indicator Rating

Attribute	Indicators	Departure from Ecological Site Description/ Ecological Reference Area(s)				
		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S,H	1. Rills					X
Comments:						
S,H	2. Water Flow Patterns				X	
Comments:						
S,H	3. Pedestals and/or Terracettes					X
Comments:						
S,H	4. Bare Ground					X
Comments:						
S,H	5. Gullies					X
Comments:						
S	6. Wind-Scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	7. Litter Movement					X
Comments:						
S,H,B	8. Soil Surface Resistance to Erosion				X	
Comments: Perennial grass is missing to full extent; Bur buttercup ground cover						
S,H,B	9. Soil Surface Loss or Degradation				X	
Comments: Historical sheep use contributed to some top soil loss						
H	10. Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments: perennial grasses & shrubs are down						
S,H,B	11. Compaction Layer					X
Comments:						
B	12. Functional/Structural Groups			X		
Comments: Diversity is down; lack of shrub & grass spp; lots invasive annuals						
B	13. Plant Mortality/Decadence					X
Comments:						
H,B	14. Litter Amount			X		
Comments: Lots of Cheatgrass						
B	15. Annual Production				X	
Comments: 60% of annual production						
B	16. Invasive Plants		X			
Comments: BRTE & Bur buttercup						
B	17. Reproductive Capability of Perennial Plants					X
Comments: Being heavily hedged at times by sheep						

S

H

B

Part 3. Summary

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

A. Indicator Summary

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)				3	6	9
H	Hydrologic Function (Indicators 1-5, 7-11 & 14)				4	7	11
B	Biotic Integrity (Indicators 8-9 & 11-17)		1		3	4	9

B. Attribute Summary - Check the category that best fits the "preponderance 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	None to Slight
Soil/Site Stability Rationale:					X
Hydrologic Function Rationale:				X	
Biotic Integrity Rationale:			X		

Attribute Rating- Check one in each row

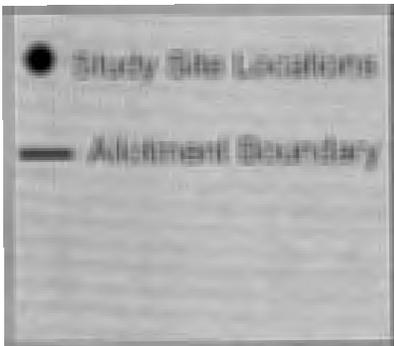
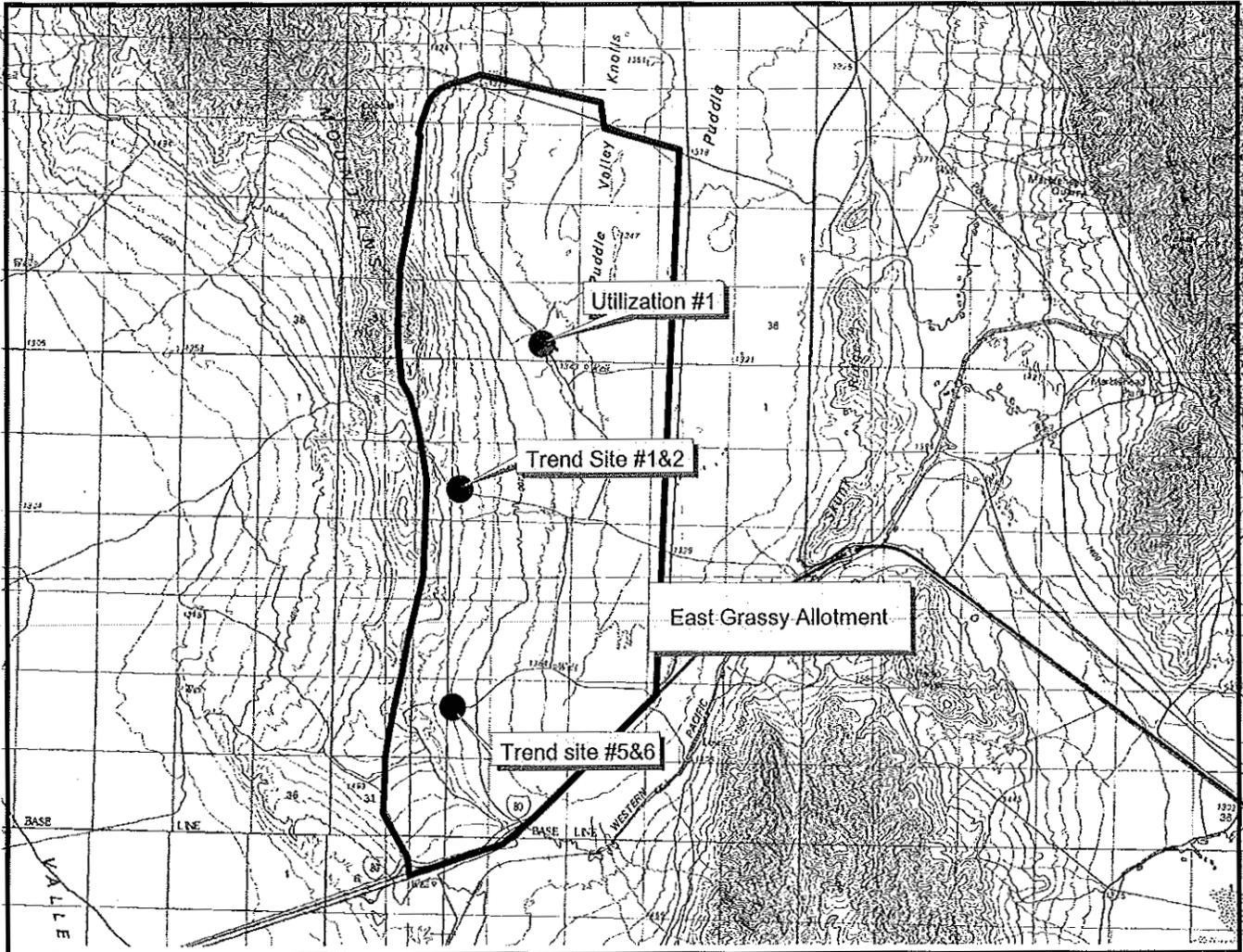
Soil/Site Stability	Not Stable <input type="checkbox"/>	At Risk <input type="checkbox"/>	Stable <input checked="" type="checkbox"/>
Biotic Integrity	Not Intact <input checked="" type="checkbox"/>	At Risk <input type="checkbox"/>	Intact <input type="checkbox"/>
Watershed Function	Non-Functioning <input type="checkbox"/>	At Risk <input type="checkbox"/>	Functioning <input checked="" type="checkbox"/>

→ Heavy sheep use, some top soil loss.

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

Site LACKS perennial grasses & shrubs; INVASIVES are abundant

East Grassy Allotment



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



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Figure 1. East Grassy allotment Rangeland Health Assessment Site Locations.

FUNDAMENTALS OF RANGELAND HEALTH
Standards and Guidelines Assessment
East Grassy Allotment

Utah Standards for Rangeland Health were assessed by an interdisciplinary team on 5/01/2002 on the East Grassy (#04025) 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 Upland soils exhibit permeability and infiltration rates that sustain or improve site productivity, considering the soil type, climate, and landform.

Site Number	Soil Stability	Hydrologic Function
Utilization Site #1	Stable	Functioning
Trend Site #1&2	At Risk	Functioning
Trend Site #5&6	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), Alkali Flat (Greasewood) (#004), Semi-desert stony loam (Black sagebrush) (#252), Semi-desert sandy loam (Wyoming big sagebrush) (#226). 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. Flow patterns matched that expected for the sites studied. There were no active pedestals or 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 East Grassy Allotment. Standard #2 does not apply.

STANDARD#3 Desired species, including native, threatened, endangered, and special-status species, are maintained at a level appropriate for the site and species involved.

Site Number	Species Diversity
Trend Site #1&2	Intact
Trend Site #5&6	Not Intact
Utilization #1	At Risk

RESOURCE CONDITIONS WITHIN THE ALLOTMENT MEET THE STANDARD? No

Rationale: A portion of 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 Trend Site #1&2 is "At Risk" due to the exotic nonnative forb Halogeton (*Halogeton glomeratus*). Halogeton is currently a minor component of this site, but could become dominant if some disturbance were to happen. The Biotic Diversity for Site #3 was determined to be "Not intact." The Site is an Alkali Flat (Greasewood); major components of this ecological site are missing. The team concluded that it was along the Hastings Cutoff and could have been due to historic grazing practices.

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 East Grassy allotment is currently meeting the standard for Soil Stability and Hydrologic Function.

Standard #2

No. This standard does not apply to the East Grassy allotment.

Standard #3

No. The East Grassy allotment is not currently meeting the standard for Biotic Diversity.

The Rangeland Health Assessment team found that Trend Site #1&2 was “At Risk” to invasive nonnative annual forbs. The Biotic Integrity of this site was determined to be “At Risk” because of the presence of Halogeton throughout the site. Halogeton is currently a minor component, although some disturbance or chain of disturbances on this site may allow Halogeton to dominate this site. It was determined that the current livestock use on this site is not contributing to the Halogeton problem.

The assessment team determined that Site #3 is “Not Intact” due to large Halogeton flats that have had some historical disturbance. The team could not identify the cause of the disturbance. This site is located along the Hastings Cutoff trail, an important migration route for early settlers to the west. Perennial grasses are almost completely absent and the shrub component is significantly reduced. It was determined that the current livestock management is not contributing to the Biotic diversity situation.

The current management on the East Grassy allotment will be according to the East Grassy Allotment Management Plan.

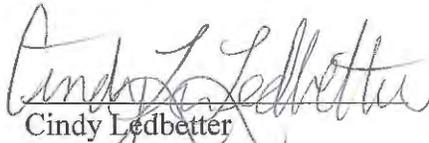
Standard #4

No. This standard does not apply to the East Grassy allotment.

PART 3. GUIDELINES FOR GRAZING MANAGEMENT TO IMPLEMENT

The East Grassy Allotment is currently meeting the standards in all Rangeland Health assessments except the Biotic Diversity standard on Site #3. Site #3 was determined to be "Not Intact" due to historic disturbance and the over abundance of Halogeton (*Halogeton glomeratus*). It was determined that the "Not Intact" condition of Site #3 was not due to current livestock grazing practices. Grazing management practices will be implemented that: maintain sufficient residual vegetation and litter to protect the soil from wind and water erosion and support ecological function; encourage innovation and alternatives to improve rangeland management practices; give priority to rangeland improvement projects and land treatments that offer the best opportunity for achieving the Standards. When manipulations are necessary, best management practices will be utilized; on rangelands where a standard is not being met and conditions are moving toward meeting the standard, grazing may be allowed to continue.

I concur:


Cindy Ledbetter

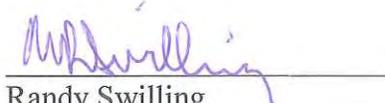
Rangeland Mgmt Spec.
Title

02/25/04
Date


Mike Gates

Lead Rangeland Mgmt spec.
Title

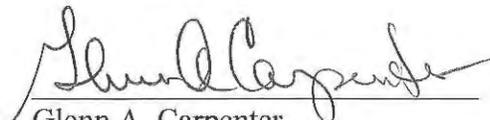
2/25/04
Date


Randy Swilling

wildlife biologist
Title

2/25/04
Date

I also concur:


Glenn A. Carpenter
Salt Lake Field Office Manager

3/24/04
Date

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. Rangeland Health Assessment Worksheets. Salt Lake Field Office.
Unpublished field data.

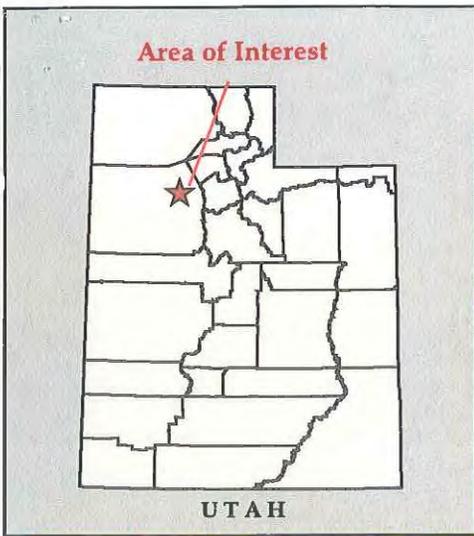
Utah-DEQ. 2000. Utah's 303(d) List of Impaired Waters. Utah Department of Environmental Quality. Salt Lake City, Utah.

East Grassy S & G Map

R 8 W

R 10 W

R 9 W



T 2 N

T 1 N

T 1 S

Utilization #1

Trend Site #1&2

Trend Site #5&6

East Grassy Allotment

- Bureau of Land Management (BLM)
- US Forest Service (USFS)
- Military Reservation
- Native American Reservation
- State
- Private



1 0 1 Miles

Bureau of Land Management
Salt Lake Field Office

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u-1

utilization cage

Rangeland Health Evaluation Summary Worksheet

Part 1. Area of Interest Documentation (Bold items require completion, other information is optional)

State UT Office 020 Management Unit East Grassy

Pasture/Watershed _____ ID# _____ Major Land Resource Area _____

Location (description) _____

Legal T 2N, R 10W, Sec 20, NE 1/4, _____ 1/4 or Lat _____, Long _____ or UTM Coord _____

Size of Evaluation Area _____ **Photo(s) Taken** Yes No _____

Observer(s) Cortes, Hardy, Heaton, Torres **Date** 04/30/2002

Ecological Site Desert Loam (Shadscale) **Soil Map Unit Name** 69

Soil/Site Verification

Rangeland Ecological Site Description and/or Soil Survey

Area of Interest Determination

Surface Texture _____

Surface Texture _____

Depth: Very Shallow Shallow Moderate Deep
(<10") (10"-20") (20"-40") (>40")

Depth: Very Shallow Shallow Moderate Deep
(<10") (10"-20") (20"-40") (>40")

List diagnostic horizons in profile and depth

List diagnostic horizons in profile and depth

1 _____ 3 _____
2 _____ 4 _____

1 _____ 3 _____
2 _____ 4 _____

Parent Material _____ **Slope** 4 % **Elevation** 4450 ft **Topographic Position** _____ **Aspect** E

Avg Annual Precip _____ **Recent Weather (last 2 years)** Drought Normal _____ Wet _____

Describe wildlife and livestock use and recent disturbances Livestock use lots of sheep trailing. Lot of Antelope in area

Describe offsite influences on area of interest Well next to site of that's where Livestock are trailing to

Species Dominance Worksheet

Part 1 (Required)

The most common species, noxious weeds (state-listed plants), invasive natives, invasive exotics (non-noxious) are **ranked** according to dominance using cover or weight .

Dominant Species on Site

- 1 Atco
- 2 Bcte
- 3 Burrbutter cup
- 4 _____

Noxious Weeds

- 1 None
- 2 _____
- 3 _____

Invasive Natives

- 1 None
- 2 _____
- 3 _____

Invasive Exotics

- 1 Bcte
- 2 Burrbutter cup
- 3 Hagl

Part 2 (Optional) Dominant Species by Life Form

The most common species are ranked according to dominance using cover or weight by life form.

Annual Grasses

- 1 Bcte
- 2 _____
- 3 _____

Annual Forbs

- 1 Burrbutter cup
- 2 Hagl
- 3 Sial

Perennial Grasses

- 1 Sily Salina Wild Ryg
- 2 Orchid
- 3 Rose

Perennial Forbs

- 1 Spro
- 2 _____
- 3 _____

Shrubs and Trees

- 1 Arsp Chvi Arno
- 2 Atco Teto Krla
- 3 Gusa Juos Epne

Succulents

- 1 Opuntia
- 2 _____
- 3 _____

Biological Crust (rate by component not species, e.g., lichen, moss, or algae)

- 1 Black Crust
- 2 _____
- 3 _____

Cover Worksheet

State VT Office 020 Ecological Site 124
 Observer(s) Gates, Hardy, Heaton, Torres Date 04/30/2002 Site ID U-1

COVER CLASSES (% Canopy)

LIFE FORMS ¹	0	0-1	2-5	6-15	16-30	31-50	51-75	76-100
I - Grass								
Annual			5					
Native Perennial				7				
Exotic Perennial	0							
II - Forb								
Annual					18			
Perennial		T						
III - Shrub								
IV - Tree	1	T				21		
V - Succulent								
VI - Biological Crust								
				15				
% GROUND COVER²								
% GROUND COVER ²	0	0-1	2-5	6-15	16-30	31-50	51-75	76-100
I - Vascular Plants								
II - Standing Dead Vegetation			4				51	
III - Litter (in contact with the soil surface)			4					
IV - Biological Crust								
V - Rock/Gravel			1	10				
VI - Bare Ground								
					16			

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 of cover in Categories II-VI should total to approximately 100%.

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

Part 2. Indicator Rating

		Departure from Ecological Site Description/ Ecological Reference Area(s)				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S,H	1. Rills					
Comments:						
S,H	2. Water Flow Patterns				X	
Comments:						
S,H	3. Pedestals and/or Terrocettes					
Comments:						
S,H	4. Bare Ground				X	
Comments: <i>Sheep trailing & lacking grasses</i>						
S,H	5. Gullies				X	
Comments: <i>Coming off roads</i>						
S	6. Wind-Scoured, Blowouts, and/or Deposition Areas					
Comments:						
H	7. Litter Movement					
Comments:						
S,H,B	8. Soil Surface Resistance to Erosion					
Comments: <i>Trailing</i>						
S,H,B	9. Soil Surface Loss or Degradation				X	
Comments: <i>Trailing</i>						
H	10. Plant Community Composition and Distribution Relative to Infiltration and Runoff					
Comments: <i>Lack of Perennial Grasses</i>						
S,H,B	11. Compaction Layer					
Comments:						
B	12. Functional/Structural Groups				X	
Comments: <i>Reduced Grasses</i>						
B	13. Plant Mortality/Decadence					
Comments:						
H,B	14. Litter Amount				X	
Comments: <i>Don't have grass litter Less</i>						
B	15. Annual Production					
Comments:						
B	16. Invasive Plants			X		
Comments: <i>Brite & Burrbutter Cup</i>						
B	17. Reproductive Capability of Perennial Plants					
Comments:						

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)				4		9
H	Hydrologic Function (Indicators 1-5, 7-11 & 14)				5		11
B	Biotic Integrity (Indicators 8-9 & 11-17)				3		9

B. Attribute Summary - Check the category that best fits the "preponderance 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	None to Slight
Soil/Site Stability Rationale:					
Hydrologic Function Rationale:					
Biotic Integrity Rationale:				X	

Attribute Rating- Check one in each row

Soil/Site Stability	Not Stable <input type="checkbox"/>	At Risk <input type="checkbox"/>	Stable <input checked="" type="checkbox"/>
Biotic Integrity	Not Intact <input type="checkbox"/>	At Risk <input checked="" type="checkbox"/>	Intact <input type="checkbox"/>
Watershed Function	Non-Functioning <input type="checkbox"/>	At Risk <input type="checkbox"/>	Functioning <input checked="" type="checkbox"/>

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

Appendix 6 Soil - Sheep trailing & water flowing but have good plant communities to stabilize soil.

Hydrologic - sheep trails by road & affect with infiltration but over all is good

Biotic - Should have more perennial grass. Have too much Brte & burr butter cup. One Juniper on site, but more on hillside.











