

SPRNCA Uplands Working Group Meeting February 12, 2025

The SPRNCA Allotments Lease Renewal EA was signed April 7, 2023 and the renewed leases with updated terms and conditions were issued July, 2023 (Babocomari, Brunckow Hill, and Lucky Hills) and September, 2023 (Three Brothers).

The purpose of this presentation is intended to share upland objectives of the SPRNCA allotments and data to determine if allotments are meeting objectives.

*link to ePlanning site with final EA and Decisions: <https://eplanning.blm.gov/eplanning-ui/project/2013674/570>

SPRNCA Allotments Objectives

Adaptive Management Objectives:

- **Perennial Grass Foliar Cover** and **Bare Ground**
- Tied to grazing management
- On the SPRNCA portion of the allotments

Desired Plant Community Objectives:

- **Perennial Grass Foliar Cover** and **Shrub Cover**
- Tied to vegetation management and restoration
- On SPRNCA and non-SPRNCA portions of allotments

Both assessed using Assessment, Inventory, and Monitoring (AIM)

Terrestrial AIM plot layout and methods

3 Transects (25 m)

Line-point intercept:

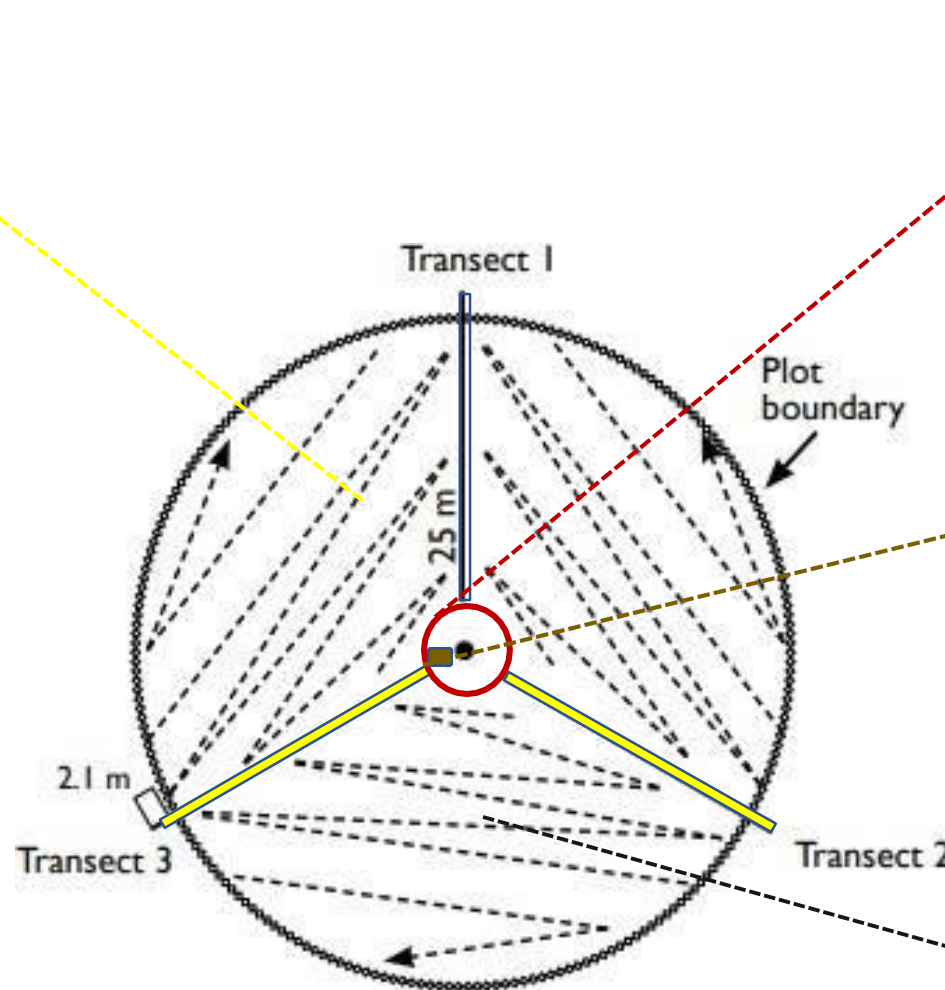
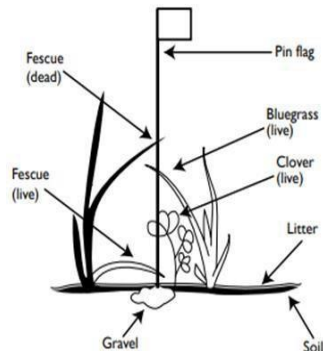
- every 0.5 m
- plant foliar cover
- ground cover
- plant height

Canopy gap intercept:

measuring gaps in plant canopies larger than 20 cm

Soil Stability: 6 samples on each transect (18 total)

Photos



Plot center with
5m "trample zone"

Observation/Characterization:

Landscape position, slope, aspect, other observations

Soil pit – soil texture, color, effervescence, and rock content at different horizons for ecological site verification.

Species Inventory – list of all species within the plot boundary

Terrestrial AIM methods and indicators

AIM Method	Indicator – What does it tell you?
Line Point Intercept – along the transects	<ul style="list-style-type: none"> • Plant Community Composition – Tells you relative and absolute foliar cover of plants by species. • Total plant foliar cover • Ground Cover – %bare ground, litter, plant base, rock cover etc.
Plant Height – along the transects tallest herbaceous plant and tallest woody plant.	<ul style="list-style-type: none"> • Vegetation Structure – Heights of the dominant woody and herbaceous plant species.
Species Inventory – throughout the entire plot	<ul style="list-style-type: none"> • Plant diversity - List of plant species found within the plot
Canopy Gap – along the transects	<ul style="list-style-type: none"> • Proportion of soil surface in large intercanopy gaps. Generally bad if there is a large proportion of large gaps.
Soil Stability – along transects	<ul style="list-style-type: none"> • Ranked on a scale of 1-6 (6 being the most stable). Estimates how susceptible the soil surface is to erosion.

Babocomari

Table: Limy and Shallow Upland Objectives	2019	2021	2022	2023	2024
Limy Upland Objectives:					
KA GRZ-02 DPC Objective					
Perennial grass foliar cover of $\geq 10\%$	12	30.7	39.3	15.3	22.67
Bare ground $< 26.7\%$	26.7	10.7	3.3	8.67	12.67
Shrub cover $< 30\%$	39			42	39.3
KA Babo-05 DPC Objective					
Perennial grass foliar cover of $\geq 1\%$	0	0	0	0	0.67
Bare ground $< 25.3\%$	25.3	24	14.7	24.67	20
Shrub Cover $< 30\%$	55			36	36
Shallow Upland Objectives:					
Babo-03					
Perennial grass foliar cover of $\geq 20\%$	18.1	56.7	56	39.3	23.3
Bare ground $< 19.3\%$	19.3	3.3	4	4.67	6.67
Shrub cover $< 10\%$	20			25.3	22
GRZ-05					
Perennial grass foliar cover of $\geq 20\%$	3.4	24.7	34.7	26.67	26
Bare ground $< 30\%$	30	3.3	1.3	24.67	2
Shrub cover $< 10\%$	31			40	37.3

Green = meeting adaptive management objective, Red = not meeting adaptive management objective, and Orange = not meeting desired plant community objective.

*See final decision documents on eplanning: <https://eplanning.blm.gov/eplanning-ui/project/2013674/570>

*Link to public AIM data hub: <https://gbp-blm-egis.hub.arcgis.com/pages/aim>



Brunckow Hill

Table: Limy and Shallow Upland Objectives					
	2019	2021	2022	2023	2024
Limy Upland Objectives:					
BK-023					
Perennial grass foliar cover of $\geq 2\%$	2	5.3	7.3	0.7	1.3
Bare ground $< 31.3\%$	31.3	32	10.7	20	35.3
Shrub Foliar cover $< 30\%$	39			20	22.6
Shallow Upland Objectives:					
BK-01					
Perennial grass foliar cover of $\geq 20\%$	12.7	28.7	20	6.6	14
Bare ground $< 14\%$	14	5.3	0.7	3.3	13.3
Shrub foliar cover $< 10\%$	36			23.3	21.3

Green = meeting adaptive management objective, Red = not meeting adaptive management objective, and Orange = not meeting desired plant community objective.

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Lucky Hills

Table: Limy Upland Objectives					
	2019	2021	2022	2023	2024
Limy Upland Objectives					
KA LH-042 Objective					
Perennial grass foliar cover of $\geq 24\%$	24	31.3	38.7	24	37.33
Bare ground $< 12.7\%$	12.7	30	4.7	12.7	18.67
Shrub foliar cover $< 30\%$	45			54	49.3

Green = meeting adaptive management objective, Red = not meeting adaptive management objective, and Orange = not meeting desired plant community objective.

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Three Brothers

Table: Limy Upland Objectives					
	2019	2021	2022	2023	2024
Limy Upland Objectives:					
KA TB-01 Objective					
Perennial grass foliar cover of $\geq 11\%$	11	20.7	24	15.3	16.67
Bare ground $< 41.3\%$	41.3	32.7	10	30	36.67
Shrub foliar cover $< 30\%$	33			38	28.6
KA TB-081 Objective					
Perennial grass foliar cover of $\geq 8\%$	8.7	17.3	26	16	28.67
Bare ground $< 34\%$	34	21.3	6.7	18.67	24.67
Shrub foliar cover $< 30\%$	36			37	45.3
KA GRZ-04 Objective					
Perennial grass foliar cover of $\geq 2\%$	2	8	3.3	0.67	2.67
Bare ground $< 25.3\%$	25.3	6.7	1.3	14	19.33
Shrub foliar cover $< 30\%$	49			70	47.3

Green = meeting adaptive management objective, Red = not meeting adaptive management objective, and Orange = not meeting desired plant community objective.

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Ungrazed

Table: Ungrazed				
Ungrazed	2019	2021	2023	2024
UNGZ-02 (Limy Upland)				
Perennial grass foliar cover of ≥10%	0	25.3	21.3	12
Bare ground	10.6	16	4	19.3
Shrub cover <30%	62	50	56.6	59.3
UNGZ-08 (Limy Upland)				
Perennial grass foliar cover of ≥1%	0	0.6	0	0.6
Bare ground	28.6	20	16	31.3
Shrub cover <30%	35.3	40.6	42.6	34.6
Shallow Upland_1				
Perennial grass foliar cover of ≥20%	NA	31.3	0	18
Bare ground	NA	2	4	12
Shrub cover <10%	NA	16	19.3	26
Shallow Upland_2				
Perennial grass foliar cover of ≥20%	NA	NA	8.6	6
Bare ground	NA	NA	10.6	11.3
Shrub cover <10%	NA	NA	22	19.3



Shallow Upland 1 9/11/2020

Green = meeting allotment adaptive management objective, Red = not meeting allotment adaptive management objective, and Orange = not meeting allotment desired plant community objective.

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*Objectives are specific to the site and that none were developed for the ungrazed reference sites