Western National FFA Rangeland Assessment Event
Management Scenario- Fall 2015

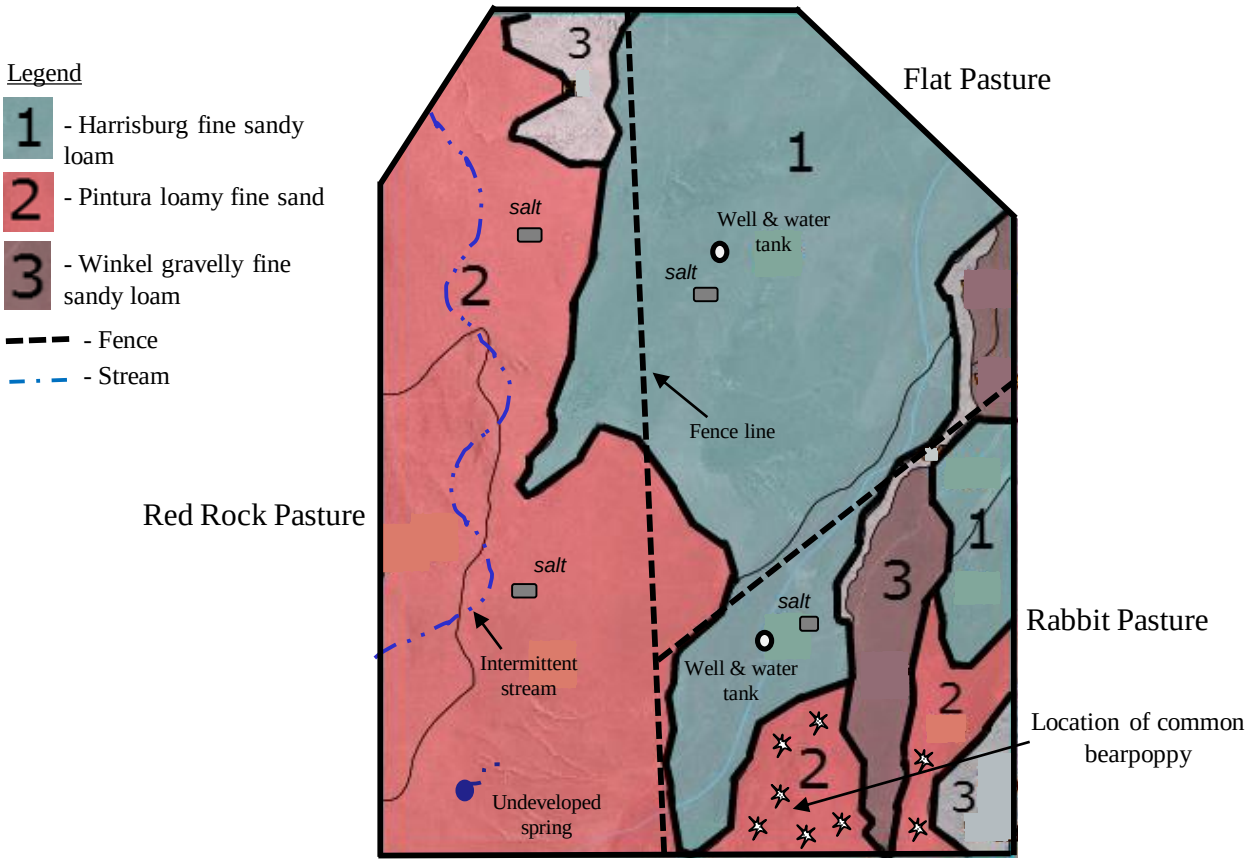
The Pricklypear Cactus Allotment is located in southwestern Utah near the Arizona border. Sam Bovious uses this allotment for winter forage for his Angus-Hereford crossbred cows. The allotment is 2,512 acres of grazing on 3 pastures of BLM land.

In the past few years, Sam has noticed that, due to stream diversion to other ranches, the intermittent stream does not run for as many days per year as it had in the past. Normally, the stream will run water from late winter to late spring. He is concerned about how he will be able to water his cows if the stream goes dry. Sam has also noticed that there has been some riparian degradation because of the cows wanting to spend so much time there. He has also just found the endangered plant common bearpoppy in the Rabbit Pasture and knows grazing at the same time of year every year could be detrimental to the plant. Precipitation has been on par for a normal year and is forecast to keep that way for the rest of the year.

Sam would like to know if his current herd size will need to be decreased, increased, or kept the same and would like other management recommendations.

Current Grazing Plan:

- 86 **Angus-Hereford crossbred cows,** that weigh on average 1,200 lbs., spend the late spring and summer (April to September) on a different allotment farther north and calve during this time.
- Calves are weaned and taken to a feedlot at the end of September.
- The cows are brought to this allotment at the beginning of October and are first let out into the Flat Pasture and graze here until the end of November.
- The cows are then moved to Rabbit Pasture and stay there until January 15.
- Finally, the cows are moved into the Red Rock pasture where they remain until the end of March.



Western National FFA Rangeland Assessment Event Management Scenario- Fall 2015 Continued

Soil Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres	Percent of Total Area
1	Harrisburg fine sandy loam (1-5% slopes)	1,093	43.5%
2	Pintura loamy fine sand (1-10% slopes)	1,143	45.5%
3	Winkel gravelly fine sandy loam (1-8% slopes)	276	11%
	Total =	2,512	100%

Vegetation Productivity

Map Unit Symbol	Map Unit Name	Favorable Year (lbs/ac)	Normal (lbs/ac)	Unfavorable Year (lbs/ac)
1	Harrisburg fine sandy loam (1-5% slopes)	651	500	300
2	Pintura loamy fine sand (1-10% slopes)	551	400	251
3	Winkel gravelly fine sandy loam (1-8% slopes)	410	340	180

In a favorable year, the amount and distribution of precipitation and the temperatures make growing conditions substantially better than average. In a normal year, growing conditions are about average. In an unfavorable year, growing conditions are well below average, generally because of low available moisture.

Ecological Site Soil Types and Characteristic Vegetation

Map Unit Symbol	Map Unit Name	Characteristic Vegetation	Recommended Utilization
1	Harrisburg fine sandy loam (1-5% slopes)	Indian ricegrass red brome sand dropseed burrobush creosote bush squirreltail fourwing saltbush	45%
2	Pintura loamy fine sand (1-10% slopes)	desert marigold globemallow Indian ricegrass sand sagebrush Nevada jointfir black grama milkvetch	40%
3	Winkel gravelly fine sandy loam (1-8% slopes)	Indian ricegrass sand dropseed sixweeks fescue Nevada jointfir creosote bush pricklypear	40%

Western National RANGELAND ASSESSMENT CDE Student Id Number: KEY

Part 5 - Stocking Rate and Management Recommendations ***(Completed at beginning or end of event)(90 points)***

Students will complete the problem individually but at the same time as a group.

Supply of usable forage = 466,341 pounds **AND** 621.8 **AUMs** *30 pts*

Forage demand = 464,400 pounds **AND** 619.2 **AUMs** *30 pts*

Determine if the stocking rate is appropriate for the site for 2013-2014.(Check appropriate box) *10 pts*

❒ Decrease Stocking Rate ❒ Increase Stocking Rate ☒ Keep Rate the Same

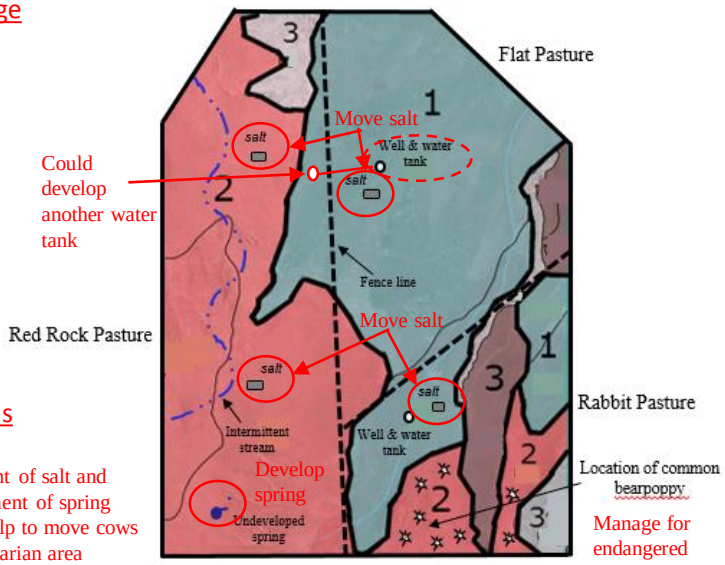
Space for Calculations:

DEMAND:
86 cows x 1.2 AUE x 6 months = 619.2 AUMs or
619.2 AUMs x 750 lbs/AUM = 464,400 lbs forage

SUPPLY:
Site 1 = 1,093 ac x 500 lbs/ac x 45% = 245,925 lbs forage
Site 2 = 1,143 ac x 400 lbs/ac x 40% = 182,880 lbs forage
Site 3 = 276 ac x 340 lbs/ac x 40% = 37,536 lbs forage

Total lbs for forage supply = 245,925 lbs + 182,880 lbs + 37,536 lbs = 466,341 lbs forage supply or 466,341 / 750 lbs/AUM = 621.8 AUMs

* There are multiple ways to do this problem.



Choose the correct management activities that apply to improve this site *(Select "Yes" for all that apply and "No" for all that do not; 2 pts each)* *20 pts*

Yes	No		Yes	No	
❒	☒	Defer from spring grazing	❒	☒	Control brush, trees and/or noxious weeds
❒	☒	Rest from grazing for a growing season	❒	☒	Seed or interseed with adapted species
☒	❒	Install a rotation grazing system	❒	☒	Reduce human recreation activities on site
❒	☒	Add or revise fencing	☒	❒	Manage for endangered species
☒	❒	Develop additional water sites	☒	❒	Change salt location