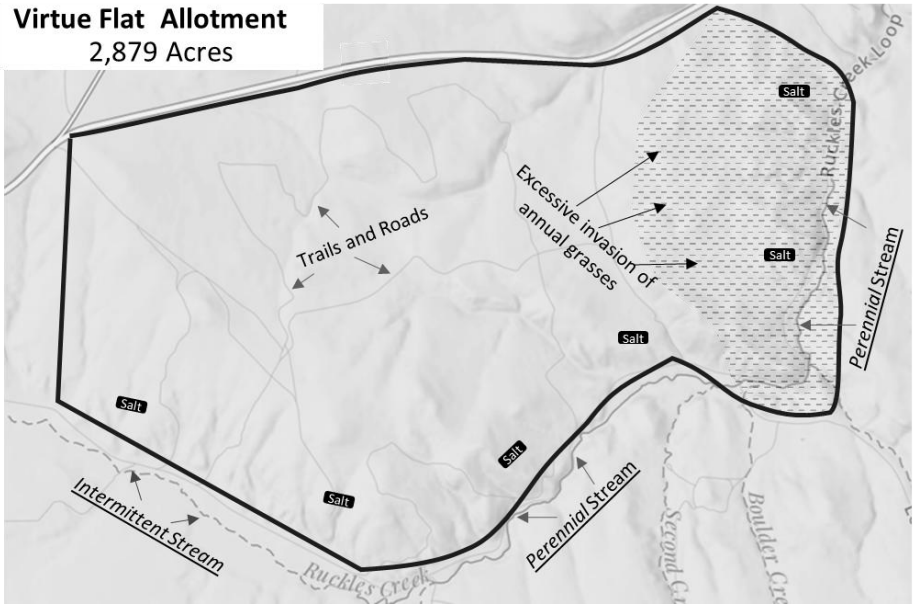
Part 1A - Stocking Rate and Management Recommendations *(90 points)*

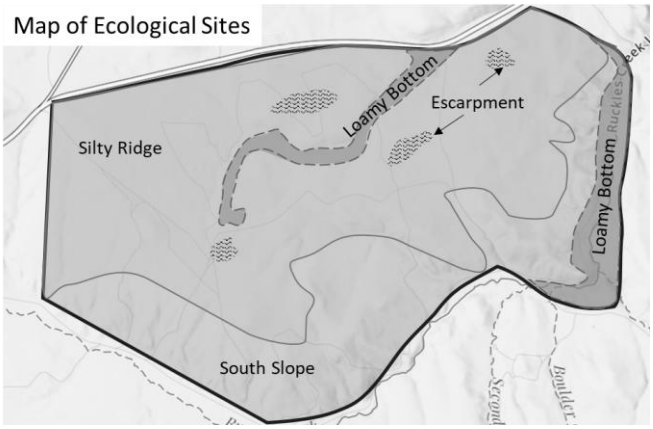
Virtue Flat is a BLM allotment in Baker County, Oregon that is dedicated to multiple use management with a staging area for off-highway vehicles like 4-wheelers and dirt bikes and grazing by both cattle and sheep. The trails and roads on the allotment are used for recreation. The trails on flat areas are in good shape but several trails in steeper areas are showing significant degradation and erosion.

Two permittees graze livestock on the Virtual Flat Allotment. There is a strong perennial stream on the east side of the allotment but there is no reliable water source on the west side of the allotment. Therefore, the allotment is grazed in the spring. The allotment is grazed every other year by 440 cattle and 980 sheep with lambs.

- Cattle (weighing 1,240 lbs on average) arrive in the allotment in early June and graze for 35 days and them they move to other BLM and Forest Service grazing allotments.
- Sheep (weighing 180 lbs on average) graze this allotment for 25 days in late May as they travel to summer grazing in the Wallowa-Whitman National Forest.



The BLM sets the stocking rate on this allotment based on production in a normal year and a utilization rate of 45% for proper use. The BLM will also consider suggested changes to the grazing plan in their regular permit renewal process starting next year.



		Forage Production (lbs/ac) per year depending on climatic conditions		
Site Name	Acres	Favorable	Normal	Unfavorable
Silty Ridge	1,710	1,300	900	600
South Slope	1,050	1,000	800	600
Escarpment	35	1,000	800	500
Loamy Bottom	84	7,000	5,000	4,000

Data from USDA Web Soil Survey

The Virtual Flat Allotment is composed of 4 Ecological Sites:

- **Silty Ridge** is a gently rolling site composed mostly of perennial bunchgrasses (85% with an overstory of big sagebrush (10%) and very few forbs.
- **South Slope** occurs on rolling topography with some steep slopes. The site id dominated by grasses (95%) with a few scattered shrubs and few forbs.
- The **Escarpment** site occurs on rough rocky areas dominated by shrubs (85%) like antelope bitterbrush and sagebrush.
- **Loamy Bottom** occurs in gentle valleys and along streams. The soil is deep and this site is highly productive and dominated by grasses (95%) such as Great Basin Wildrye with willows and other riparian shrubs along streams.

Part 1A - Stocking Rate and Management Recommendations *(90 points)*

Refer to map and description of scenario on separate page.

Supply of usable forage = _____ pounds **AND** _____ AUMs *30 pts*

Forage demand = _____ pounds **AND** _____ AUMs *30 pts*

Determine if the stocking rate is appropriate for the site. You must show your work in order to receive full credit. (Check appropriate box) *10 pts*

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

Space for Calculations:

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

Part 1A - Stocking Rate and Management Recommendations *(90 points)*

Refer to map and description of scenario on separate page.

Supply of usable forage = *1,158,750* pounds **AND** *1,545* AUMs *30 pts*

Forage demand = *587,650* pounds **AND** *783.5* AUMs *30 pts*

Determine if the stocking rate is appropriate for the site. You must show your work in order to receive full credit. (Check appropriate box) *10 pts*

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

Space for Calculations:

Forage Supply:

Silty Ridge = 1,710 ac × 900 lbs/ac = 1,539,000 lbs
South Slope = 1,050 ac × 800 lbs/ac = 840,000 lbs
Escarpment = 35 ac × 800 lbs/ac = 28,000 lbs
Loamy Bottom = 84 ac × 2,000 lbs/ac = 168,000 lbs
*Total = 2,575,000 lbs × 45% Use factor = **1,158,750** lbs or **1,545** AUMS*

Forage Demand:

Cattle = 1240 lbs × 31 lbs/day × 35 days × 440 cattle = 477,400 lbs
Sheep = 180 lbs × 4.5 lbs/day × 25 days × 980 sheep = 110,250 lbs
*Total = **587,650** lbs ÷ 750 lbs/AUM = **783.5** AUMs*

Management Activates:

- *Need to develop a water site (or haul water) to the west side of the allotment. This would allow the pasture to be grazed later in the season to facilitate deferment of spring grazing.*
- *This allotment is just one part of a series of pastures, so it is not necessary to install a rotation grazing system.*
- *Need to try to control the annual grasses including ventinanta.*
- *Reduce human recreation to manage the trails that are being degraded.*
- *Also, should move salt and spread it across the pasture*

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