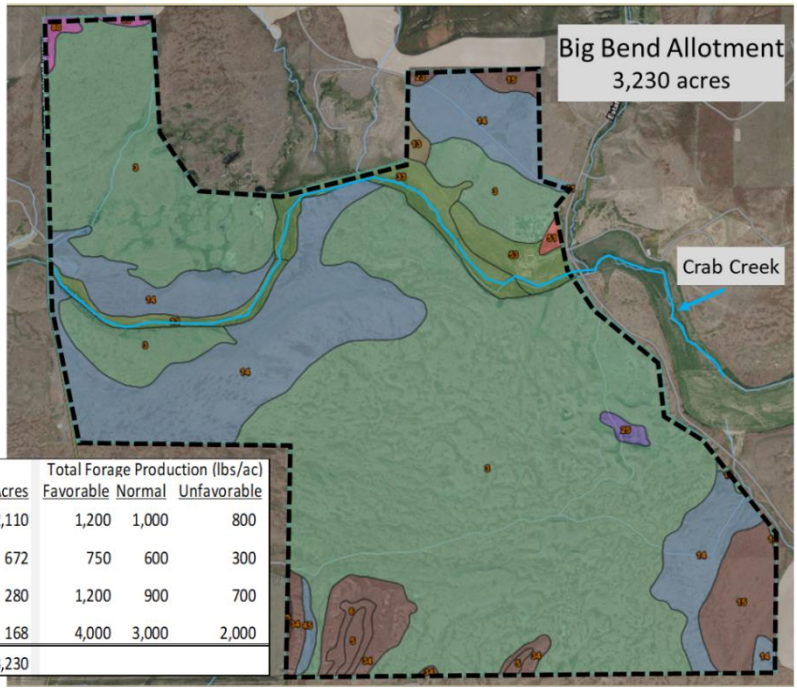
CHAPTER NAME: _____ STUDENT ID #: _____

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

The **Big Butte Allotment** is managed by the Bureau of Land Management (BLM) on a rolling landscape along Crab Creek north of Ritzville, Washington. The allotment is 3,230 acres and covered by Cool Loamy, Stony or Loamy Sagebrush ecological sites which are dominated by sagebrush and bunchgrasses including bluebunch wheatgrass, Idaho fescue, and native needlegrasses. The riparian area near Crab Creek is a Loamy Bottom ecological site including riparian plants like Baltic rush and Nebraska Sedge. The BLM has determined that 45% of the forage in this allotment can be used each year for proper use (i.e., 45% Proper Use Factor)



	Acres	Total Forage Production (lbs/ac) Favorable	Normal	Unfavorable
Cool Loamy Sagebrush	2,110	1,200	1,000	800
Stony Sagebrush	672	750	600	300
Loamy Sagebrush	280	1,200	900	700
Loamy Bottom	168	4,000	3,000	2,000
Total Acres =	3,230			

This allotment is currently being evaluated for renewal of the grazing permit and the BLM land manager is working with the rancher to determine if the current authorized stocking levels are too low or too high to provide adequate forage in an "unfavorable" year. The Big Bend livestock grazing management permit authorizes 30 cattle (average 1,200 pounds) and 6 horses (average 1,000 pounds) for 28 days in summer (Jul 15-Aug 14) plus also authorizes 109 horses (average 1,000 pounds) for grazing in winter for 92 days (Nov. 1-Feb 1).

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*

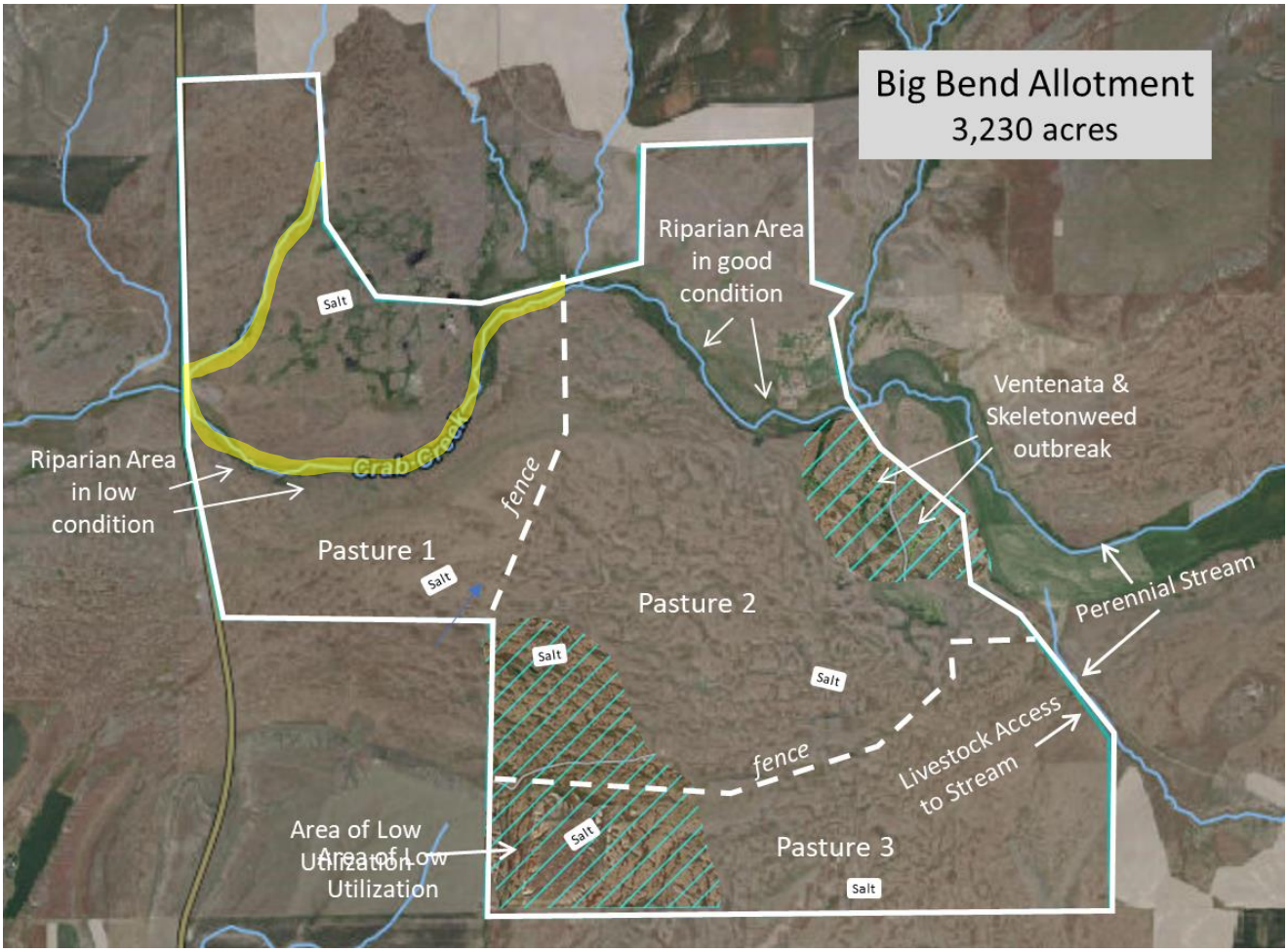
❒ Decrease Stocking Rate ❒ Increase Stocking Rate ❒ Keep Rate the Same

Space for Calculations:

↓↓ *Make sure to offer management suggestions on the other side of this page.* ↓↓

CHAPTER NAME: _____ STUDENT ID #: _____

The Big Bend Allotment is divided into three pastures. Pasture 1 is grazed by cattle and horses from July 15th to August 14th while Pastures 2 is grazed by horses from November 1st to mid-December and then horses are moved to Pasture 3 from mid-December through January.



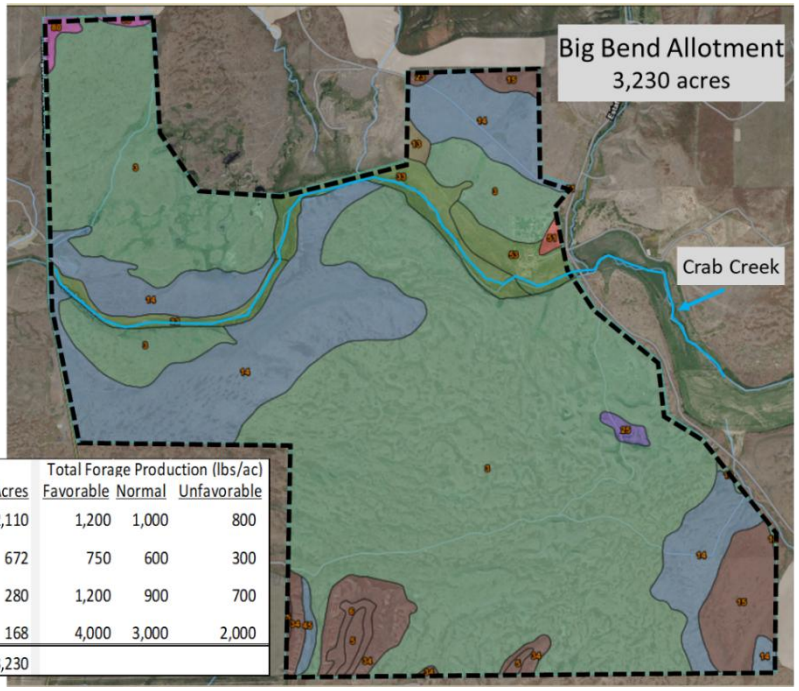
Choose the correct management activities that apply to improve this site *(Select "Yes" for all that apply and select "No" for all that do not; 2pts each)* *20 pts*

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 or add salt location

CHAPTER NAME: _____ STUDENT ID #: _____

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

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Total Acres =	3,230			

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Supply of usable forage = 1,089,720 pounds **AND** 1,453 AUMs *30 pts*

Forage demand = 343,825 pounds **AND** 458.4 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:

Big Butte Allotment = (Cool Loamy Sagebrush 2,110 ac × 800 lbs/ac) + (Stony Sagebrush 672 ac × 300 lbs/ac) + (Loamy Sagebrush 280 ac × 700 lbs/ac) + (Loamy Bottom 168 ac × 2,000 lbs/ac) = 1,688,000 + 201,600 + 196,000 + 336,000 = 2,421,600 pounds x 45% Proper Use Factor = **1,089,720 pounds** ÷ 750 lbs/AUM = **1,453 AUMs**

Forage Demand:

Summer Cows = 1,200 lbs average weight × 2.5% intake/day = 30 lbs intake/day × 28 days = 840 lbs intake per animals x 30 cows = **25,200** total pounds for cows in July& August

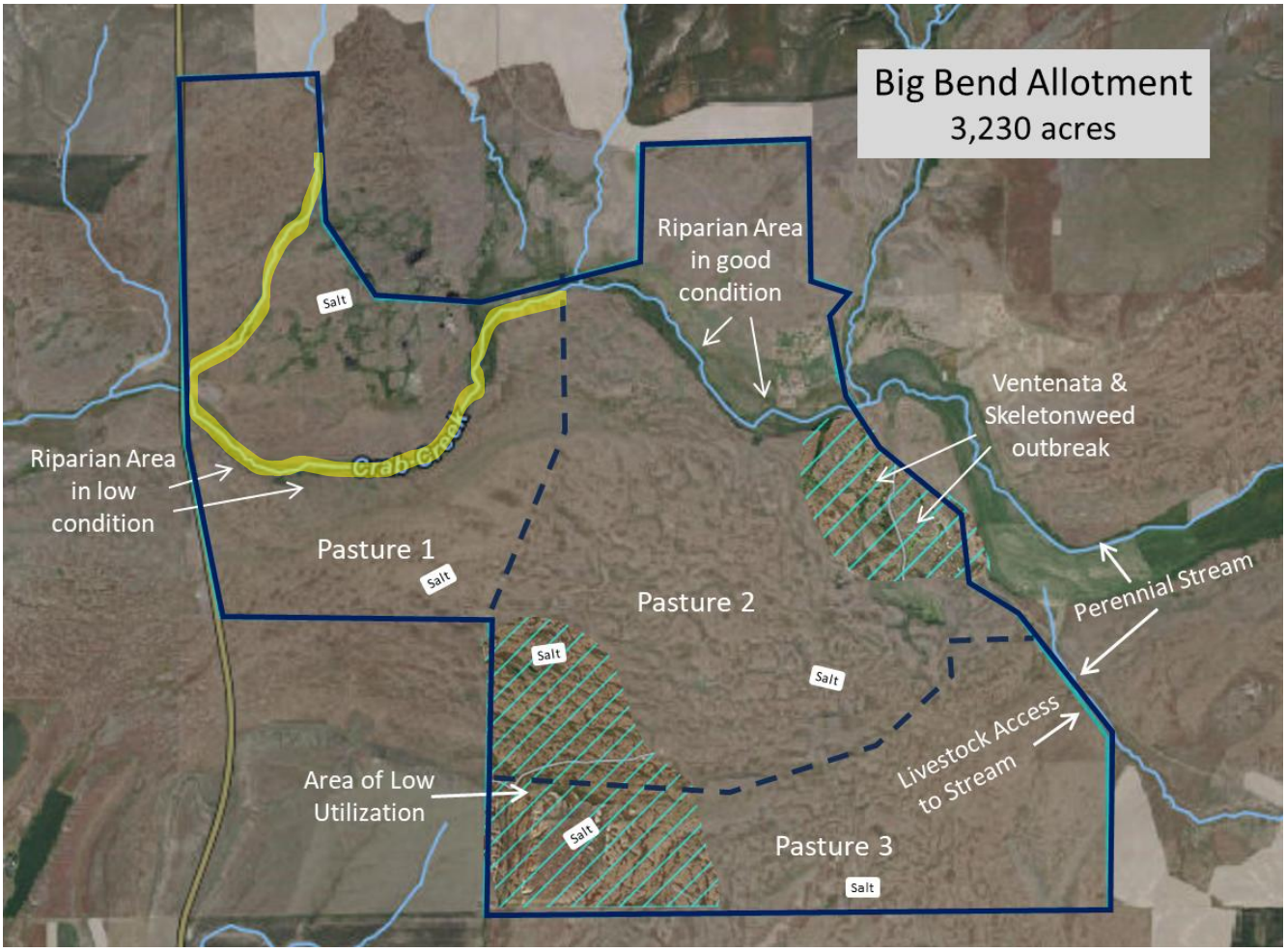
Summer Horses = 1,000 lbs average weight × 2.5% intake/day = 25 lbs intake/day for a 1,000 lb ruminant + 6.25 lbs for 25% more that horses eat compared to ruminants = 31.25 × 28 days = 875 lbs intake per animals x 6 horses = **5,250** total pounds for Horses in July& August

Winter Horses = 1,000 lbs average weight × 2.5% intake/day = 25 lbs intake/day for a 1,000 lb ruminant + 6.25 lbs for 25% more that horses eat compared to ruminants = 31.25 × 92 days = 2,875 lbs intake per animals x 109 horses = **313,375** total pounds for Horses in November-February

Total = 25,200 + 5,250 + 313,375 = **343,825 lbs** ÷ 750 lbs/AUM = **458.4 AUM**

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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 or add salt location