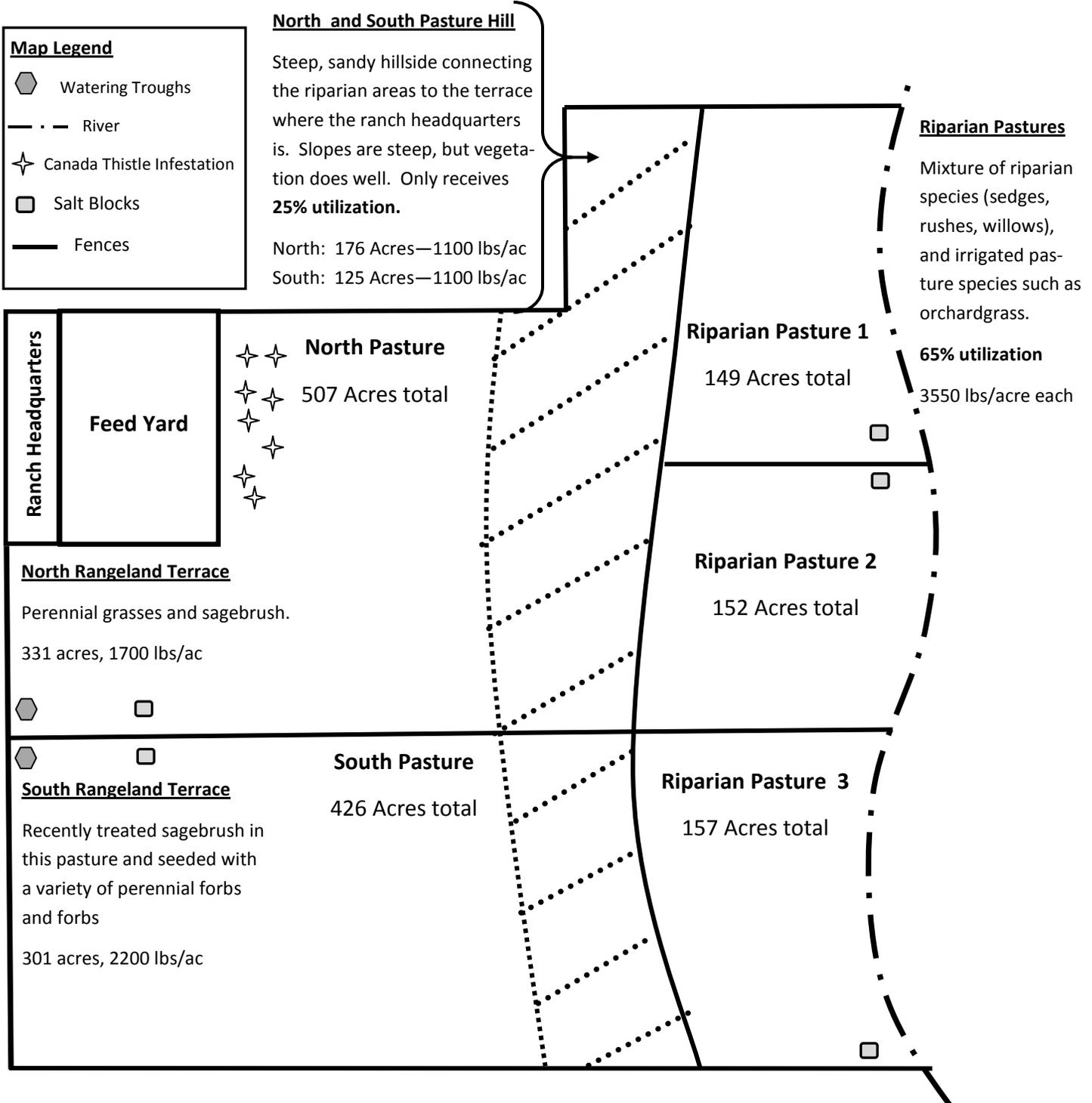


2011 Western National Rangeland CDE ~ Management Scenario

This map depicts the ranch of Mr. Hunsaker along the Bear River in Box Elder County, Utah. It includes two rangeland pastures, (North Pasture and South Pasture) which are comprised of a hill section and a terrace section. He also has 3 riparian pastures that run along the banks of the Bear River. His ranch headquarters and a feed yard are located on the northwest corner of the ranch. Mr. Hunsaker owns 375 cow/calf pairs, (1200 lbs each or 1.2 AUE), and 15 horses (1.25 AUE). He also brings an addition 100 cow/calf pairs (1000 lbs each or 1 AUE) on to the ranch to graze for extra revenue. All of the cattle are on the ranch from Oct. 15—May 30th. From Oct. 15—Dec. 15, the cows are rotated through the riparian pastures. From Dec. 16—March 30 cows are kept in the feed yard and fed hay. From April 1—May 30 the North and South Pasture are grazed. From June 1—July 15 the cattle are grazed on a BLM allotment, and then from July 16—Oct. 14, the cattle are on a series of Forest Service Allotments. The 15 horses are grazed throughout the pastures on the ranch from May 1—Nov. 30. Mr. Hunsaker is worried that his range appears overgrazed because of heavy use in areas, especially those on the west side and near the feed yard. He would also like to ensure that the riparian pastures remain productive, but feels the cattle spend most of their time on the east side near the river. Please determine Mr. Hunsaker's forage supply and demand, and management activities that may apply. (Reminder!! 1 AUM = 750 lbs forage = 1000 lb cow/calf pair).



2011 WNRCDE Management Scenario Key

Determining Useable Forage:

North Pasture

Hill:

$$176 \text{ ac} * 1100 \text{ lb/ac} * .25 = 48,400 \text{ lbs forage}$$

Terrace:

$$331 \text{ ac} * 1700 \text{ lb/ac} * .5 = 281,350 \text{ lbs forage}$$

South Pasture

Hill:

$$125 \text{ ac} * 1100 \text{ lb/ac} * .25 = 34,375 \text{ lbs forage}$$

Terrace:

$$301 \text{ ac} * 2200 \text{ lb/ac} * .5 = 331,100 \text{ lbs forage}$$

Riparian Pasture 1:

$$149 \text{ ac} * 3550 \text{ lb/ac} * .65 = 343,818 \text{ lbs forage}$$

Riparian Pasture 2:

$$152 \text{ ac} * 3550 \text{ lb/ac} * .65 = 350,740 \text{ lbs forage}$$

Riparian Pasture 3:

$$157 \text{ ac} * 3550 \text{ lb/ac} * .65 = 362,278 \text{ lbs forage}$$

Total Useable Forage = 1,752,061 lbs forage

Or $1,752,061 \text{ lbs} / 750 \text{ lb/AUM} = \mathbf{2,336 \text{ AUMs}}$

Hint: Don't use total pasture size for calculating North and South Pastures. Since the utilization is not explicitly stated for the North and South Pasture terraces assume 50% utilization.

Determining Forage Demand:

Cows

375 cows * 1.2 AUE * 4 months = 1,800 AUMs

100 cows * 1.0 AUE * 4 months = 400 AUMs

Total cow AUMs = 2,200 AUMs

Hint: Cows were fed hay from Dec. 16 – March 30, so the amount of time they spent in the feedyard does not factor in AUM calculation.

Horses

15 horses * 1.25 AUE * 7 months = 131 AUMs

Total Forage Demand = 2,331 AUMs

Or 2,331 AUMs * 750 lb/AUM = **1,748,250 lbs forage**