

3F. Habitat Improvement (40 pts)

Rangeland Managers and Grazing Permittees have identified the Indian Springs Allotment as a suitable location to use prescriptive cattle grazing as a tool to reduce the abundance of herbaceous fuels (dead grass and forbs). Reducing the abundance and height of herbaceous fuels will reduce the risk of wildfire and the potential negative impacts to valuable sagebrush plant communities. The challenge associated with this management practice is that it requires more uniform and higher forage utilization levels on mid-elevation sites within the allotment. Under the current management strategy, these sites are grazed only lightly by cattle because in the Spring cattle rush toward higher elevations and the associated new, green, forage. In the Fall, these sites also receive relatively little grazing use because cattle are in a hurry to get to lower elevations and the green hayfields that await their departure from the allotment. The proposed remedy to address this management challenge is to cross fence the Indian Springs field with a 2.5 mile "drift fence" from the Cherry Springs Road (east side) to McMullen creek (west side).

The Questions:

1. Based solely on estimated **costs for a 25 year period**, should the Western Livestock Association (the Permittees) install a 3-wire, high-tensile, electric fence or a traditional 5-strand, barbed-wire fence?
2. If ranchers in the Western Livestock Association make an average profit of \$86.00 per head, how many additional calves would members of this association need to produce over the 25 year period to pay for the fence?

Considerations:

- Electric fence costs = \$0.97/foot
- Barbed-wire fence costs = \$ 1.31/foot
- Estimated time required to maintain electric fence per year = 4 days/mile
- Estimated time required to maintain barbed-wire fence per year = 0.5 day/mile
- Daily labor costs = \$97.00
- Estimated costs (1 time cost) of new equipment required to maintain electric fence = \$286.00

Show Calculations: