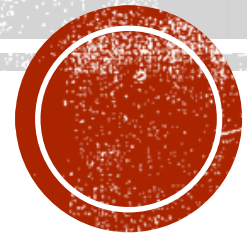


# **ELK STREAM RANCH SUBDIVISION – NRCS RANGE SURVEY**

Field Inventory on 11/5-6/2019

NRCS staff Shaan Bliss

Point of contact: Steve Boone, Phil Walters



# 2019 SUMMARY

- 2019 – 30 pair, with 1 bulls grazing from June 4th to August 5<sup>th</sup> (2 months grazed) ~ 76 AUM's
- Historically grazing ranged from 60 – 106 yearlings with a season of use from 55 to 150 days on ~ 165 to 267 AUM's
- Grazing occurs mostly in canyon bottoms as the creek, embankment ponds and stock tanks fed by hauled water are the water sources
- The canyon side slopes are steep and brushy with little incentive for grazing up higher
- The east west slopes of the subdivision have natural boundaries without fences
- The north and south edge of the subdivision have fences with gates



# 2019 UTILIZATION SUMMARY

- Overall the utilization cages appear to indicate that the majority of the ranch is being managed conservatively
- The ranch could be stocked heavier and for longer time if it's a high/average precipitation year
- The northern portion of the ranch appears to be underutilized
  - Cages actually show potentially more grass in grazed fields vs ungrazed
  - Dung and Urine from cattle may have contributed to increased production
  - Cage T2 and T3 had more production in the ungrazed site vs exclusion cage but this may indicate the sites highly variable so they should be verified in 2020
- The southern meadow site indicates the highest utilization at 50%
- These results indicate that for 2019 stocking was adequately managed and could actually be stocked heavier and longer
- A cross fence to limit use in the southern portion of the ranch could alleviate long-term impacts on the riparian areas





# UTILIZATION CAGES

- T-1
- Post Grazing Season 10/10/18



- Post Grazing Season 11/5/19





# UTILIZATION CAGES

- T-2
- Post Grazing Season – 10/10/18



- Post Grazing Season – 11/5/19





# UTILIZATION CAGES

- T-3
- Post Grazing Season – 10/10/18



- Post Grazing Season – 11/5/19





# UTILIZATION CAGES

- T-4
- Post Grazing Season – 10/10/18



- Post Grazing Season – 11/6/19





# GRAZING UTILIZATION SUMMARY WITH PRODUCTION

- T-1 - 68% Ungrazed 2,041 lbs/ac / 32% Grazed - 338 (652 lbs/ac)
  - Compared to 2017 data of average site production of 450 lbs/ac – 4.5 x greater amount
- T-2 - 100 % Ungrazed 2,041 lbs/ac / 0% Grazed - 2,891 lbs/ac)
  - Compared to 2017 data of average site production of 1,340 lbs/ac – 1.5 x greater amount
- T-3 - 100% Ungrazed 2,693 lbs/ac / 0% Grazed - 2,778 lbs/ac)
  - 3% greater in Grazed
  - Compared to 2017 data of average site production of 1,050 lbs/ac – 2.5 x greater amount
- T-4 - 50% Ungrazed 6,747.3 lbs/ac / 50% Grazed 3,402 lbs/ac)
  - Compared to 2017 data of average site production of 2,940 lbs/ac – 2.3 x greater amount



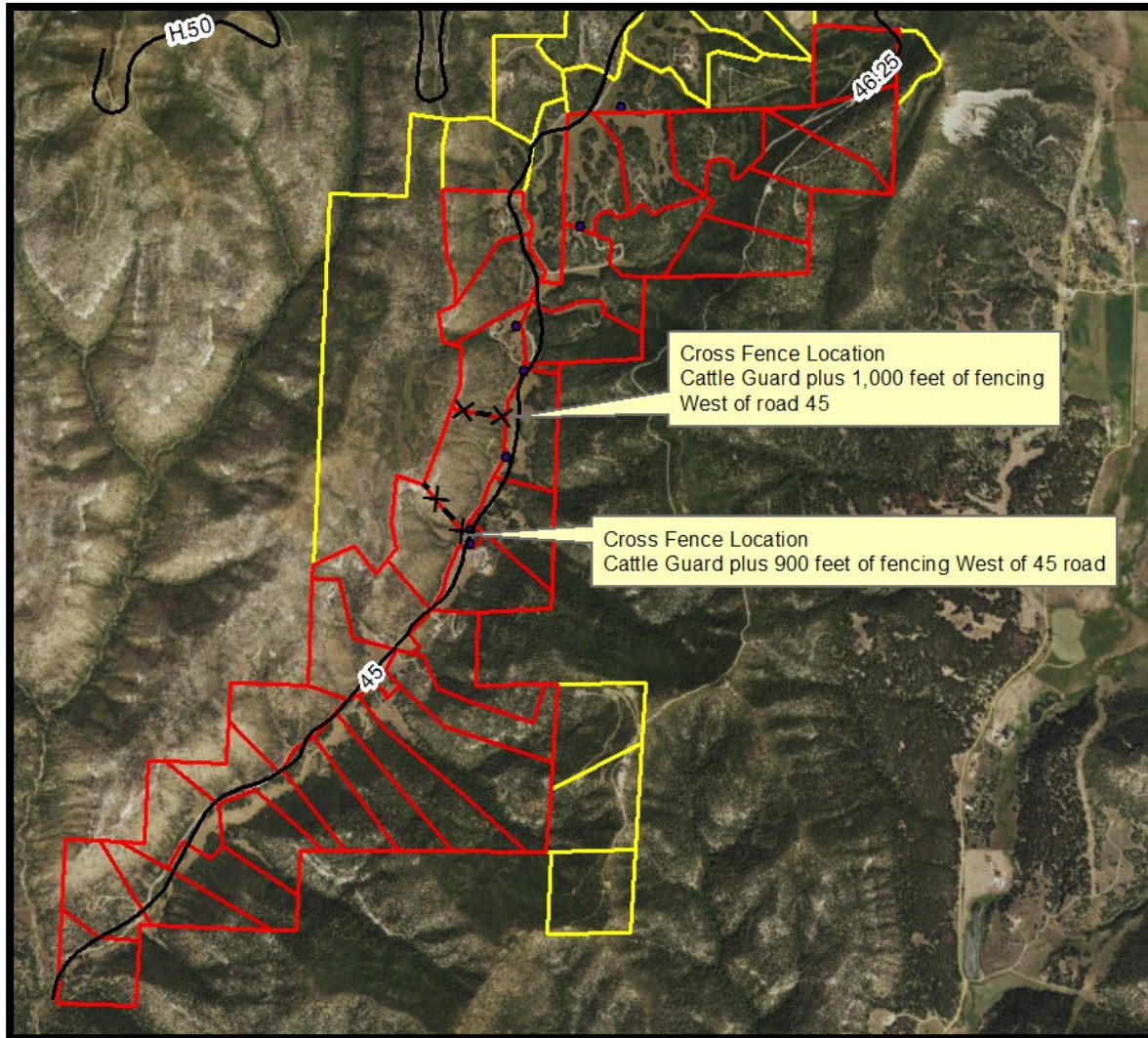


# GRAZING HISTORY SUMMARY

- 2017 – 30 pair, with 1-2 bulls grazing from June 1<sup>st</sup> to Early August (2 to 2.5 months grazed) ~ 85 AUM's
- Historically grazing ranged from 60 – 106 yearlings with a season of use from 55 to 150 days on ~ 165 to 267 AUM's
- Grazing occurs mostly in canyon bottoms as the creek, embankment ponds and stock tanks fed by hauled water are the water sources
- The canyon side slopes are steep and brushy with little incentive for grazing up higher
- The east west slopes of the subdivision have natural boundaries without fences
- The north and south edge of the subdivision have fenced gates



# POSSIBLE CROSS FENCE AND CATTLE GUARD TO CONTROL GRAZING ACROSS PROPERTIES



- One optional improvement is to put a cross fence that would run east and west approximately 900 to 1,000 feet long by the new wooden fence
  - 528 acres on North Half
  - 704 acres on South Half
- This would allow half of the pastures to rest while the other half is grazed.
- Overall it appears that the northern half of the subdivision is in better condition and can handle longer grazing periods than the southern half
- If build with a cattleguard there would not be a need to have a third gate to deal with

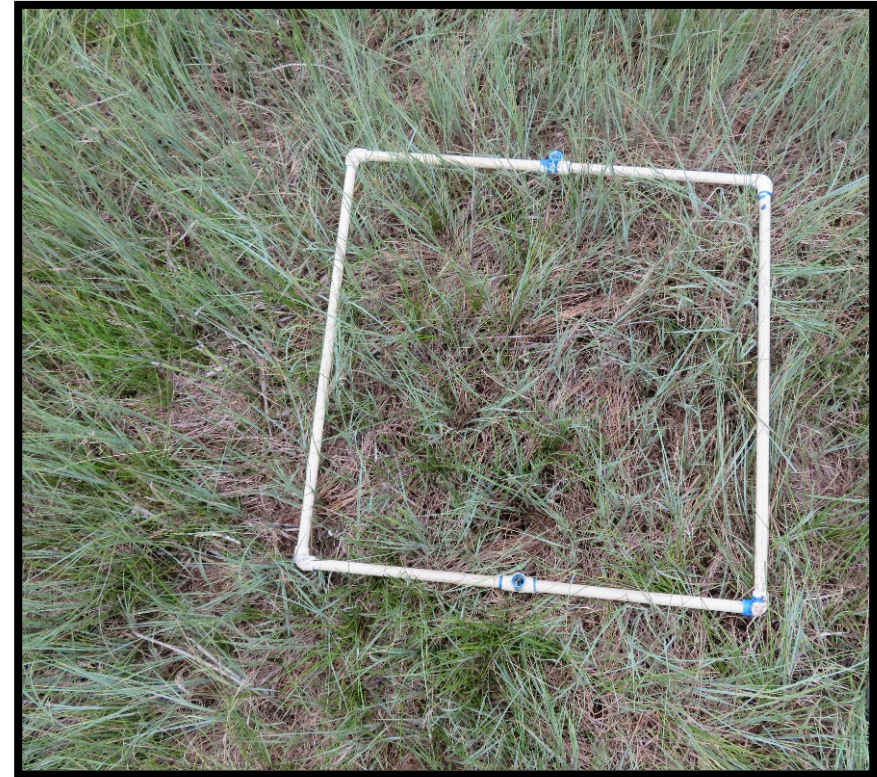




# ESTIMATED FORAGE BALANCE

## Estimated Forage Available

- Based on clipping a few sites we estimate there is around
  - 169 to 338 AUM's of forage available
  - Based of an Harvest efficiency of 25 - 50%
- I estimate forage production ranges from
  - 300 – 5,000 lbs/acre per year
  - See Pivot Table for breakdown
- We estimate that of the 1,304 acres available only 724 acres (55%) are actually grazed because of steep slopes and distance from reliable water
- If the properties were split North/South by a hotwire or cattle guard the available AUM's would be
  - North – 57 to 115 AUM's (0.25, 0.5 HE)
  - South – 111 to 223 AUM's





# ROADSIDE DITCH SEDIMENT CATCHMENTS

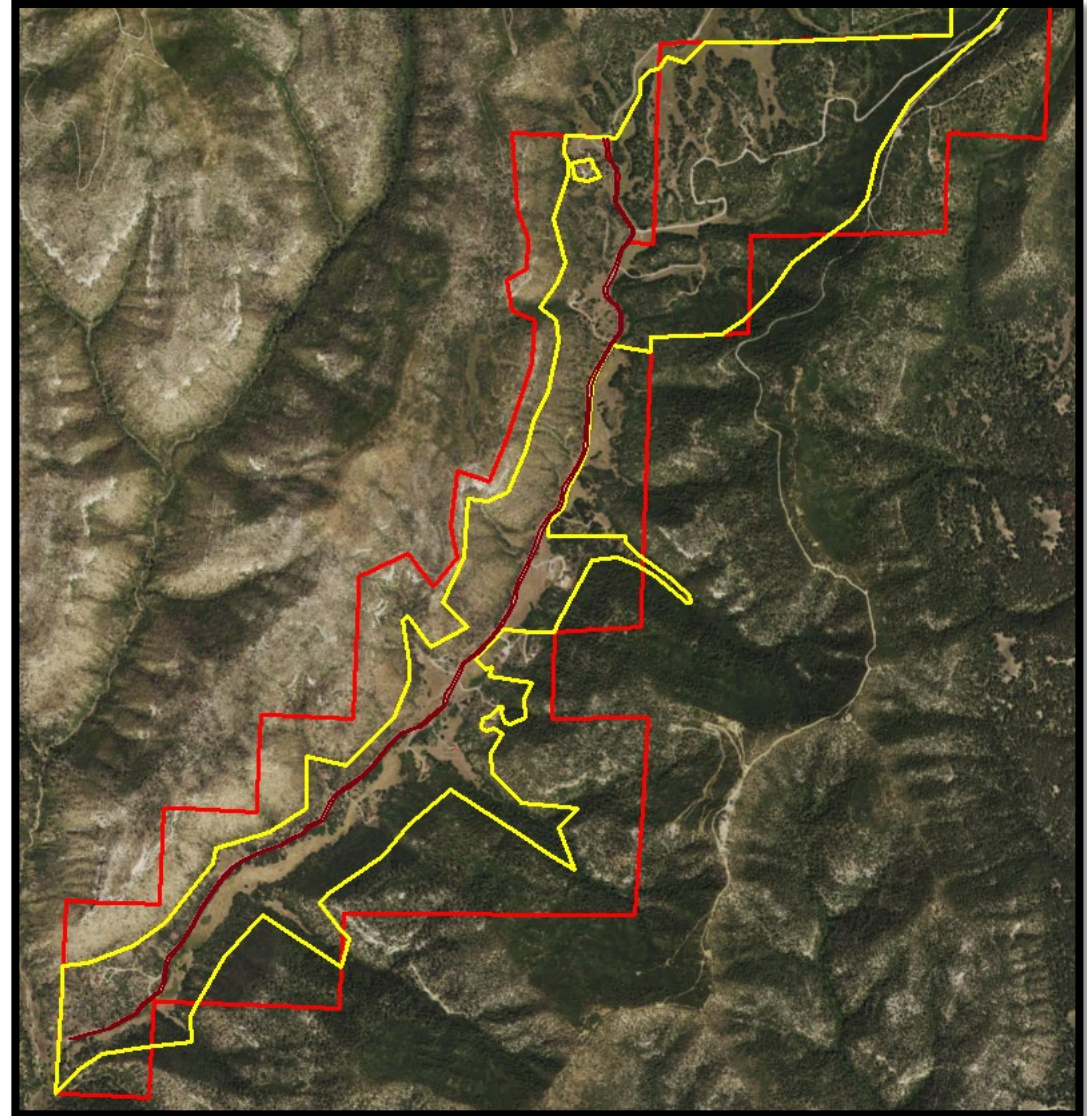
- Consider reseeding all sediment catchments as silt has accumulated and continued to flow unrestricted
- Without revegetating these areas they will continue to contribute to erosion and road damage as there is little infiltration
- Consider pulling fence catchments and reinstalling to be effective against surface runoff
- See attached reseeding recommendations





# ROADSIDE DITCH

- Area covers the full extent of the main road
- 14,556 feet long x 20 feet
- Area of reseeding estimated to be 6.7 acres
- Some areas are worse than others
- The northern end appears in better shape likely due to the





# AUM'S SUPPLY/DEMAND SUMMARY

## Estimated Total AUM's of Forage Available – 2019

- 222 AUM's with 0.25 utilization or leaving over 75% of available grass for plant health and seasonal losses

## Estimated Total AUM's Demand

- 30 Cow/calf Pair
- 2 Bulls

## Estimated Season of use

- June 1<sup>st</sup> to Early August (2 to 2.5 months grazed) ~ 76 AUM's

## Estimated Total Demand

- 30 cow calf Pairs \* 1.2 AUE \* 2 months = 72 AUM's
- 1 Bulls \* 2 AUE \* 2 months = 4
- Total AUM Demand = 76 AUM's

Feed/Forage Balance =  $222 - 76 = +146$  AUM's

- Value assumes no supplemental feeding





# CONTINUE TO HAVE SEASONAL MONITORING AND EVALUATION OF YOUR GRAZING PLAN

- 2019 stocking rate appears to be very lightly stocked with minimal issues
- Monitoring can continue with photos, grazing exclusion cages, Stubble Heights, or other resources
- NRCS will work with you to set these up and continue to visit annually
- Ideally monitoring will occur at least twice a year. Once at the beginning of the grazing season and once at the end of the grazing season



# SUMMARY OF RESULTS

- Stocking rate is well within reason for the estimated available forage
- Grass Stubble Heights appear within reason based on NRCS recommendations
- A temporary hotwire or cattle guard halfway in the subdivision could aid in overall forage health of the subdivision by limiting repeated grazing of desirable plants
- There are a few areas that could be reseeded but overall weeds are not out of control
- Silt Fences along the roadside ditches appears stable and inactive but they should be reseeded and erosion structures should be replaced to be effective again
- Continue monitoring production with annual inventory, photo's, and grass clippings to track vegetation changes yearly. NRCS can provide free assistance in this process.

