EXECUTIVE SUMMARY

Yellow Creek Elk Herd (DAU E-10)	**GMUs: 21, 22, 30, 31, 32**
Posthunt Population: Previous Objective: 7,000-9000 elk; Estimate for 2020: 12,067. **Preferred Alternative: 8,500-10,500**	
Posthunt Sex Ratio (Bulls:100 Cows): Previous Objective: 18-22; Post-hunt 2020 observed: 24.8; modeled: 23.6. **Future Management: Status Quo OTC, expected ratio of 18-25**	

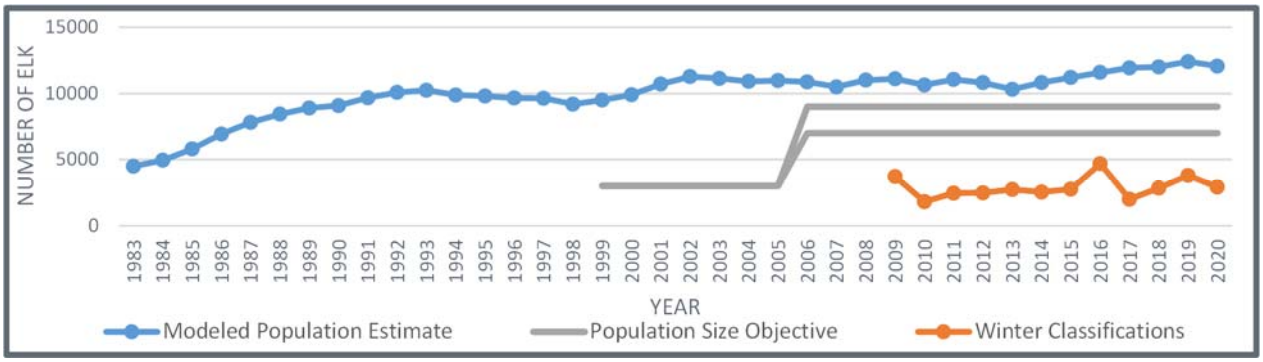


Figure 1. E-10 Modeled Post-hunt Population Estimate, Objective Range, and Classifications, 1983 – 2019.

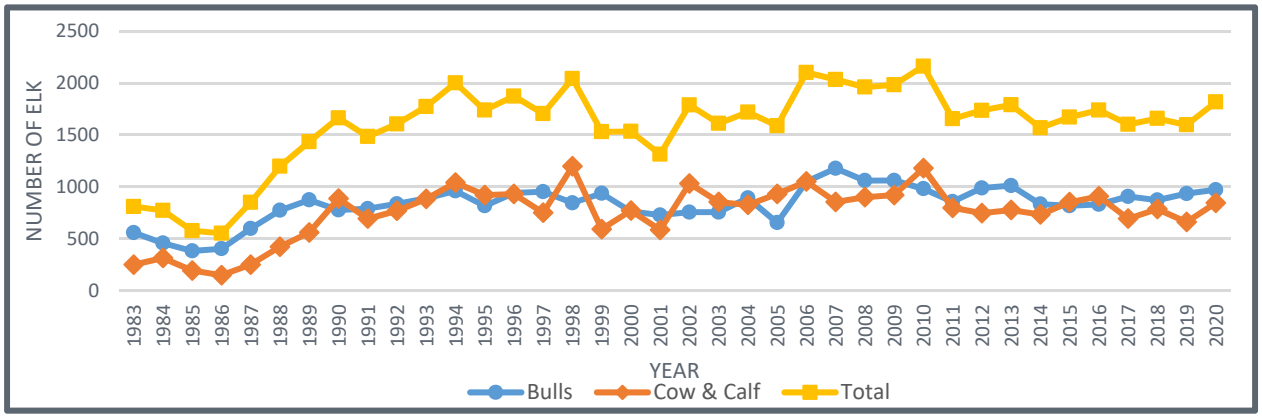


Figure 2. E-10 Annual Harvest Estimate, 1983 – 2019.

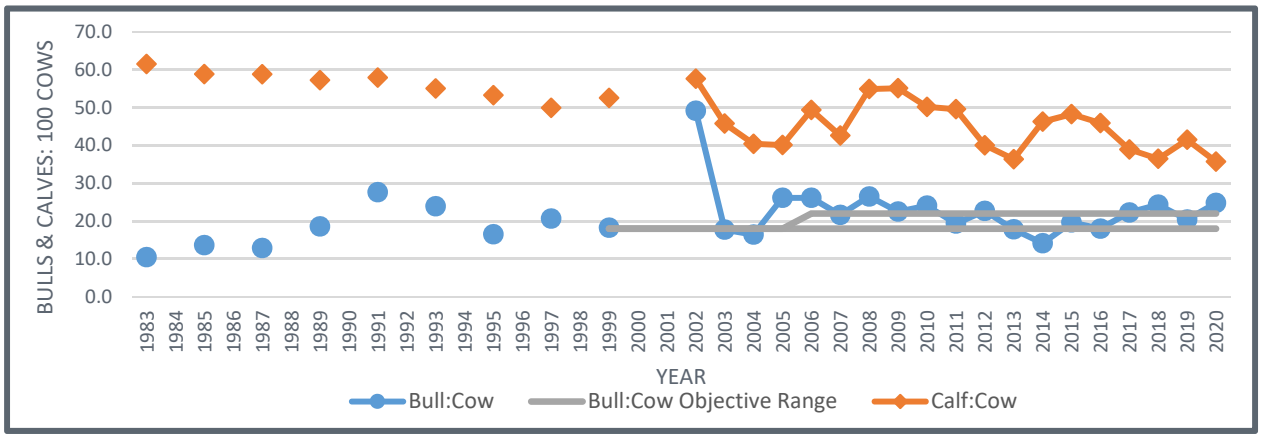


Figure 3. E-10 Observed Bull:Cow and Calf:Cow Ratios and Bull:Cow Objective Range, 1983 – 2019.

Background Information

The Yellow Creek elk herd (DAU E-10) is comprised of GMU's 21, 22, 30, 31, and 32 located in portions of Mesa, Garfield, and Rio Blanco Counties. Approximately 29% of E-10 is privately owned while the Bureau of Land Management manages most of the remaining land. Major geographic features include the Bookcliffs and the Roan Plateau and significant drainages include Yellow, Roan, Piceance, and Parachute Creek. Elevations range from 4,600 ft. to nearly 9,300 ft. Lower elevations are used for agricultural production and residential developments while higher elevations are grazed by livestock during the spring, summer and fall. Oil and gas production is common throughout much of the DAU. Population centers include Grand Junction, Rangely, Palisade, Parachute, and Rifle.

The elk population in E-10 has mirrored the larger population in Colorado. Unregulated market hunting following European expansion nearly extirpated elk from the state by the early 1900's (Barrows and Holmes 1990). The elk population in E-10 remained extremely low through much of the 20th century but grew steadily through the 1980s and early 1990s. Since the mid-1990s, the growth has slowed because of increased harvest to better manage the herd. Calf:cow ratios have declined steadily from over 60 calves:100 cows in the early 1980s to 36.5 calves:100 cows in 2018. It is likely that the low calf:cow ratios are due to overall degraded condition of the habitat, habitat fragmentation, and increasing recreational activities.

Significant Issues

Elk management in E-10 is affected by habitat quality decline, competition with feral horses, long-term drought, increasing recreational activity, oil and gas development, large-scale wildfire, and the resulting changes in herd distribution. CPW collaborates with private landowners and land management agencies on habitat projects to benefit all species of wildlife. Calf:cow ratios in E-10 have been declining steadily, which mirrors the trends in many elk herds in Colorado. Additionally, hemorrhagic, and chronic wasting diseases have been documented in E-10 and may be impacting the population. Predation may also be affecting calf survival. Elk distribution and public hunting access is complex and requires cohesive and uniform management strategies.

Management Alternatives

Three alternatives were proposed for the population size in E-10 for the next ten years. The three options were framed as changes from the 2019 population size estimate of 12,411: a) to remain at status quo, b) a slight decrease from the current population size estimate and c) a moderate decrease from the current population size estimate. There was strong public support for managing the elk herd well below the DAU's diminished forage capacity due to feral horses, long-term drought, fire, and habitat fragmentation by energy development. A smaller elk population will decrease resource competition with mule deer and lower the potential for population-level impacts from CWD in the future. For these reasons, CPW staff recommend a slight reduction in the population size objective range, from the current population estimate of 12,067, to 8,500-10,500 elk. Changing license allocation from over-the-counter to limited requires a public petition to the Parks and Wildlife Commission. For this reason, the DAU will continue to have OTC licenses and the bull cow ratio objective, based on observed data over the last 10 years, will be an expected ratio of 18-25 bulls:100 cows.