REVIEW OF THE 2015 ALBERTA RANGELAND HEALTH REPORTS CONDUCTED BY THE ROCKY MOUNTAIN FOREST GRAZERS ASSOCIATION

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SUMMARY OF FINDINGS

The objective of this review of the observations and assessments contained in the 2015 Rangeland Health Reports was to determine the impact of wild horses on the rangeland health of the eastern slopes of Alberta as compared to factors such as clearcut logging (cutblocks), oil and gas (well sites and pipelines), off-road recreational activities (random camping, off-highway vehicles (OHV's), ATV's and trucks), cattle grazing, non-native species and other activities. The study did not review the individual impact of the above factors as that was beyond the intent and scope of the study.

The observations and assessments documented in the reports indicate that wild horses are NOT the major factor impacting the overall health and stand establishment of the rangeland. The majority of observed and assessed sites where rangeland health was impacted listed factors other than horses (clearcut logging, well sites and pipelines, off road recreation, cattle grazing, and non-native plants) as being the primary factors impacting rangeland health. Less than 5% of all the observed and assessed sites mentioned horses as the primary factor impacting the rangeland health.

The reports fail to consider the beneficial aspects of having wild horses present on the landscape such spreading of seeds when horses digest food, the consumption of dry grasses which could reduce the potential for forest fires or providing an alternate prey source for carnivores that would not be there if the horses were eradicated. In fact, other countries are reintroducing wild horses to replenish the ecosystems: https://www.reuters.com/world/asia-pacific/wild-horses-return-kazakhstans-golden-steppe-after-some-200-years-2024-06-13/.

ANALYSIS OF THE REPORTS

The reports were conducted in the Ghost, Sundre and Clearwater equine zones in 2015. The Ghost equine zone had 8 evaluated allotments, the Sundre equine zone had 4 evaluated allotments, and the Clearwater equine zone had 1 evaluated allotment.

The eastern slopes of the Rocky Mountains in Alberta are considered by many Albertans to be an integral part of Alberta's culture, history, and economy. These areas are highly valued for their many ecological attributes and are also the headwaters for most of the rivers that provide water for human consumption as well as for irrigation across western Canada. The eastern slopes are also utilized for a multitude of industrial, off-road recreational, and grazing activities,

such as clearcut logging, oil and gas, off-road recreational activities, and cattle grazing. The wildlife values are also very high and are enjoyed by many Albertans for both their consumptive and non-consumptive uses.

The eastern slopes are also home to wild horses, which are commonly referred to as “wildies” by many people in Alberta. A recent published study indicates that the wild horses were introduced to the Foothills in the early 1600s by First Nations who were responsible for spreading across the interior of the continent the Spanish Iberian horses first brought to the Americas in the early 1500s. The Foothills wild horse population has thus existed in the Fescue grassland ecosystem for four centuries and is today just one of two unique places left in North America where wild horses have integrated into an intact predator-prey ecosystem that includes wolves, grizzly bears, black bears and mountain lions.

The existence of wild horses in this area is controversial for some individuals or groups, as their presence on the landscape overlaps with the other activities mentioned above. This has often led to conflict between those who value these wild horses and want them left alone and those, particularly in the industrial extraction or cattle industries, which refer to them as feral animals and want to see their numbers severely limited or eradicated.

Specific to the cattle industry in Alberta, since the late 1800’s there have significant efforts to utilize the eastern slopes for cattle grazing, which has been supported by the Alberta government as a significant economic driver in the province through the sales of grazing leases to private lease holders who are then allowed to graze their cattle in specific areas of the eastern slopes called allotments. The first grazing leases in Alberta were instituted in 1881, with the system designed to encourage economic activity utilizing the forage resources on Crown land. They were also set up in an attempt to replace the bison that were extirpated from the region. Traditionally, in the growing season. bison moved down from the eastern slopes where they overwintered to the prairie regions to graze, so current cattle grazing during the growing season does not fully replicate the historic effects of the bison. Given the value of these grazing leases, there have been ongoing efforts to evaluate the health of these rangelands to ensure that the value of these areas is protected from degradation which in turn safeguards their long term value for the leaseholders, the government and Albertans in general. The evaluations conducted for the eastern slopes grazing areas are called the Rangeland Health Reports and include the assessments done by the Rocky Mountain Forest Grazers Association as well as Riparian reports conducted by The Alberta Riparian Habitat Management Society, also known as “Cows and Fish”, which is a non-profit society striving to foster a better understanding of how improvements in grazing and other management of riparian areas can enhance landscape health and productivity, for the benefit of landowners, agricultural producers, communities, fish and wildlife populations and others who use and value riparian areas. To understand the Rangeland Health Reports and how they are conducted, please refer to the following link: Range health | Alberta.ca

These evaluations have been managed and paid for on a yearly basis by the grazing participants of the Rocky Mountain Forest Grazers Association. Up until 2022 these reports have never been

made public, however in 2022 Zoocheck Canada ("Zoocheck"), after ten years of Freedom of Information (FOI) applications, was finally able to access the 2015 reports for the Ghost, Sundre, and Clearwater equine zones.

Why Were Only The 2015 Rangeland Health Reports Evaluated?

The Government of Alberta has refused to release any additional Rangeland Health Reports and has gone to considerable efforts to deter Zoocheck from getting additional rangeland health data, including an 8 year fight to get the 2015 information which ultimately was received under an order by the Alberta Information and Privacy Commissioner to Alberta Environment and Parks. The previous withholding of information from the public domain indicates that the government had misused section 16(1) of Alberta's Freedom of Information and Protection of Privacy Act (FOIP Act). In 2018 the government entered into a Memorandum of Understanding with Rocky Mountain Forest Grazers Association in an attempt to contract out of their obligation to comply with the FOIP Act. which the Commissioner's report notes is not permitted. As of this writing Zoocheck is still fighting for additional Rangeland Health Report information.

What Was Objective Of Reviewing These Reports?

Over the years a common refrain from the Alberta government and industry is that "the wild or feral horses are damaging and negatively impacting the rangeland health in the eastern slopes and their numbers must be reduced."

The objective of reviewing the 2015 Rangeland Health Reports was to determine what impact, if any, the wild horses are having on the foothills rangeland health, particularly as compared to other human factors, primarily industrial and off-road recreational activities, such as clearcut logging, oil and gas, random camping, ATV, OHV and truck use activities, cattle grazing and non-native plant species.

Given the volume of material to be reviewed, the focus of this review was to determine specifically what impact the wild horses may be having on the rangeland health, if any, and if there is impact, how broad and significant is that impact.

How Are the Rangeland Health Reports Conducted And Evaluated?

The Rangeland Health Reports are conducted annually by staff paid by the Rocky Mountain Forest Grazers Association who make systematic site observations and provide numerically ranked health assessments during the growing season. It should be noted that this group also makes recommendations to the government on required actions to preserve the health of the rangelands and to protect the rangeland for members who hold the grazing leases from the government. The reports themselves are complex, with a number of different observations and assessments done in order to provide a numerical "Health Score: assessment" for each site.

Health Scores - What Do They Tell You?

Range Health Categories

The range health score is a cumulative measure of the health and function observed and measured in your sample area. It is a rapid assessment tool and provides a snapshot of the health of the site and possible impacts of disturbance and management. Range health monitoring alerts livestock producers and users to potential issues and problems on rangelands so that management changes can be made. First, consider the health categories and what they mean.

Healthy:

A health score between 75 to 100 %. All of the key functions of health rangeland are being performed. This rating provides a positive message about your current management practices. It may tell you that current stocking levels, distribution and grazing practices are maintaining range health. Optimum grazing opportunities for livestock are possible.

Healthy with Problems:

A health score of 50 to 74%. Most, but not all of the key functions of healthy range are being performed. Sites in this category should be on the “watch list” requiring further monitoring. This score is an early warning of the need for minor to major adjustments to management. There may be a reduction in livestock grazing opportunities. Recovery to a healthy class can normally be accomplished within a few years. In rough fescue grasslands invaded by agronomic grasses like Kentucky bluegrass, smooth brome or timothy, recovery potential may be very limited and a health score of healthy with problems may be the maximum attainable given current knowledge.

Unhealthy:

A health score of less than 50%. Few of the functions of healthy range are being performed. An unhealthy rating means urgent action is required. Significant management changes are essential and it may take years to regain a healthy class. Livestock grazing opportunities are seriously reduced.

Scenario 1: Completed Grassland Score Sheet

Grassland Range Health Assessment - SCORE SHEET Alberta Government

Date: October 6, 2016	Observer: Jenn Richman	Disposition/Project: Scope		Plot: 1978
Field Unit: Kipps' pasture		Polygon: 13		Decile: 1
Latitude: 50.088259 (DD)		Longitude: -111.84339 (DD)		Elevation: 713 m
LSD: 12	QS: NW	SEC: 15	TWP: 13	RGE 14	M W4	Photo #: 6-7

Special Observations (e.g., climate, management) Recovering from previous drought. Normal precipitation this year. Stocking rates were not not reduced in the dry years.

Dominant Species

Grass and grass - like	Cover %	Forbs	Cover %	Shrubs	Cover %	Trees	Cover %
needle & thread	20	scarlet mallow	5	sagebrush	1	none	
western wheat grass	15	fringed sage	5				
sedges	10	golden aster	3				
northern wheat grass	5	buffalo bean	2				

Subregion/Plant Community (PC) or Conditional PC Name Dry mixedgrass / needle and thread - wheat grass (DMG42)

Scoring: circle appropriate value(s) and add to the score box

1. Does the PC resemble the reference PC? Circle the appropriate score, and answer 1A (native) **OR** 1B (modified)

1A	(40)	27	20	15	0	Comments There is a slight increase in sedges and reducation of needle and thread compared to the reference PC decription (DMG42) but it still resembles it.	Score (1A or 1B) 40
1B			15	8	0		

2. Are the expected plant layers present?

	10	(7)	3	0	Comments Tall grass layer is reduced in stature	Score 7

3. Does the site retain moisture? Is the expected amount of plant litter present?

	25	(13)	0		Comments The litter is patchy. Average litter load is about 160 lbs/ac	Score 13

4. Is there accelerated soil erosion? Answer both 4.1 and 4.2

4.1 Erosion Evidence	10	(7)	3	0	Comments There is some evidence of plant pedastalling due to wind erosion	Score (4.1+4.2) 10
4.2 Bare Soil	5	(3)	1	0	Site is normally (stable) / unstable (circle) Human-caused bare soil (%) 25 Moss and lichen (%) 40	

5. Are prohibited noxious and/or noxious weeds present? Answer both 5.1 and 5.2.

5.1 Cover (%)	Species	%	DD	Infestation Size	Unit	Treated	Score (5.1+5.2)
5 (3) 1 0	Canada thistle	<1%	2	2	ha, ac, (m²)	UNK, (no) yes	6
					ha, ac, m²	UNK, no, yes	
5.2 Density Distribution (DD)					ha, ac, m²	UNK, no, yes	
5 (3) 1 0	Comments A couple of plants by the west gate.						

Grazing Intensity (estimated long term; circle) U U-L L-M (M) M-H H

Observed Utilization 65 %

Trend (apparent; circle): Upward (Downward) Stable Unknown

Total 76%

0%---------- 50% ---------- 75% ---------- 100%

<50% Unhealthy | 50% - 74% Healthy with Problems | 75% - 100% Healthy

Scenario 2: Completed Forest Score Sheet

Forest Range Health Assessment - SCORE SHEET Alberta Government

Date: July 25, 2016	Observer: GY	Disposition/Project Lothian				Plot: 3
Field Unit: Saskatoon Pasture		Polygon: 1				Decile: 1
Latitude: 53.9098 (DD)		Longitude: -111.3210 (DD)				Elevation: 646 m
LSD: 10	QS: SW	SEC: 7	TWP: 57	RGE: 9	M W4	Photo #: 8-9

Special Observations (e.g., climate, management) Normal rainfall. Alder cover is significant and not palatable.

Dominant Species **Cutblock site (circle):** yes or (no); **if yes,** was a level 1 assessment completed? yes or no

Grass and grass - like	Cover %	Forbs	Cover %	Shrubs	Cover %	Trees	Cover %
marsh reed grass	5	bunchberry	10	alder	40	aspen	70
Kentucky Bluegrass	3	strawberry	5	rose	5	white birch	3
quack grass	2	dandelion	5	snowberry	5	white spruce	1
sedges	1	white clover	2	low-bush cranberry	2		

Subregion/Plant Community (PC) or Conditional PC Name (code) Dry mixedwood / aspen-alder (DM(06)

Scoring: circle appropriate value(s) and add to the score box

1. Does the PC resemble the reference PC?

25 20 15 (10) 5 0 — Comments: Decreasers (e.g., low-bush cranberry and asters) reduced. Some patches of invaders. — **Score** 10

2. Are there any changes in forest plant community structure?

35 27 (18) 9 0 — Comments: Tall forb layer missing; low-bush cranberry heavily browsed and poor vigor — **Score** 18

3. Are there changes to the surface organic layer (LFH thickness and compaction)?

20 14 (8) 0 — Comments: LFH reduced and noticeably compacted. — **Score** 8

4. Is there accelerated soil erosion? Answer both 4.1 and 4.2.

4.1 Erosion Evidence: (5) 3 1 0

4.2 Bare Soil: (5) 3 1 0

Comments

Site is normally (stable) / unstable (circle)

Human-caused bare soil (%) 1 Moss and lichen cover (%) 20

Score (4.1+4.2) 10

5. Are prohibited noxious and/or noxious weeds present? Answer both 5.1 and 5.2.

5.1 Cover (%): (5) 3 1 0

5.2 Density Distribution (DD): (5) 3 1 0

Species	%	DD	Infestation Size	Infestation Unit	Infestation Treated
				ha, ac, m^2	UNK, no, yes
none			none	ha, ac, m^2	UNK, no, yes
				ha, ac, m^2	UNK, no, yes

Comments

Score (5.1+5.2) 10

Grazing Intensity (estimated long term; circle) U U-L L-M (M) M-H H

Observed Utilization 20 %

Trend (apparent; circle): Upward (Downward) Stable Unknown

Total 56%

0% ---------- 50% ---------- 75% ---------- 100%

<50% Unhealthy | 50% - 74% Healthy with Problems | 75% - 100% Healthy

Scenario 3: Completed Tame Pasture Score Sheet

Tame Pasture Health Assessment - SCORE SHEET Alberta Government

Date: Aug 25, 2016	Observer: D L	Disposition/Project: Stone	Plot: 1
Field Unit: Dogwood		Polygon: 1	Decile: 1
Latitude: 53.800 (DD)		Longitude: -111.314 (DD)	Elevation: 682m
LSD: 10	QS: NE SEC: 15 TWP: 65 RGE 9 M W4		photo #: 11-12

Special Observations (e.g., climate, weed or brush control, grazing management) 15 yr old tame pasture. Normal mositure. No brush control since establishment.

Dominant Species

Grass and grass - like	Cover %	Forbs	Cover %	Shrubs	Cover %	Trees	Cover %
Kentucky Bluegrass	25	strawberry	10	rose	5	aspen	15
creeping red fescue	25	dandelion	10	snowberry	20		
quack grass	5	yarrow	5				
smooth brome	5	white clover	5				

Subregion/Plant Community (PC) or Conditional PC Name Dry mixedwood / grazing resistant species dominate with >15% woody regrowth. (DMF13R)

Scoring: circle appropriate value(s) and add to the score box

1. Do introduced forage plants dominate the site? Answer 1A (tame) OR 1B (modified tame)

1A Tame Pasture 12 9 (5)	Comments	Only a few smooth brome and meadow brome plants around	Score (1A or 1B) 5
1B Modified Tame Pasture 9 5 0			

2. What kind of plants are on the site? Shift in stand composition. Answer both 2.1 and 2.2.

2.1 Tame/desirable native 14 7 (0)	Comments	about 35% cover of weedy and disturbance species	Score (2.1+2.2) 7
2.2 Weedy/disturbance 14 (7) 0			

3. Is the site covered by litter?

Cover & distribution 25 16 8 (0)	Comments	Litter found in small isolated patches	Score 0

4. Is there accelerated soil erosion? Answer both 4.1 and 4.2.

4.1 Erosion Evidence 10 (7) 4 0	Comments	Some hoof shear visable	Score (4.1+4.2) 10
4.2 Bare Soil 5 (3) 1 0	Site is normally (stable) / unstable (circle);	Human-caused bare soil (%) 10%	

5. Are prohibited noxious and/or noxious weeds present? Answer both 5.1 and 5.2.

5.1 Cover (%)	Species	%	DD	Infestation Size	Unit	Treated	Score (5.1+5.2)
5 (3) 1 0	tansy	<1	2	1	ha, ac, (m²)	UNK, (no), yes	6
					ha, ac, m²	UNK, no, yes	
5.2 Density Distribution (DD)					ha, ac, m²	UNK, no, yes	
5 (3) 1 0	Comments a couple of plants by brush pile						

6. Does this site have woody re-growth? Answer both 6.1 and 6.2.

6.1 Cover (%)	Dominant species	Cover %	Density Dist.	Score (6.1+6.2)
6 3 (0) N/A	snowberry	20	9	
	aspen	15	13	0
6.2 Density Distribution	rose	5	8	
4 2 (0) N/A	Comments aspen 12' tall			

Grazing Intensity (estimated long term; circle) U U-L L-M M M-H (H)

Observed Utilization 85 %

Trend (apparent; circle): Upward Downward (Stable) Unknown

Total 28 of 100 = 28%

0%---------- 50% ---------- 75% ---------- 100%

<50% Unhealthy | 50% - 74% Healthy with Problems | 75% - 100% Healthy

In addition to the assessments shown above, observations of the site and assessments of vegetation inventory are also conducted at many sites to provide an overview of the site and identify the species present at a particular site to understand changes in the plant community and how these changes could impact the grazing value as a whole. These particular assessments also function to help determine if non-native plant species are impacting the landscape, and if so, what measures might be needed in future to reduce or eliminate their impact.

How Comprehensive Are The Rangeland Health Reports?

A total of 3875 pages in five different Rangeland Health reports were reviewed for the Ghost, Sundre and Clearwater equine zones. Of these, 2194 pages were various types of observations and assessments including Site Description Forms, Vegetative Inventory Forms, and the Site Assessment Score Sheets. The remainder of the pages, the contents of which were not included in this review, were photos, handwritten notes and database files.

Only sites with completed site assessment score sheets with numerical site scores and site description forms were used for these findings, with a total of approximately 483 site assessment score sheets + site descriptions reviewed, including the Grassland Range Health Assessments, Forest Range Health Assessments, and the Riparian Health Forms.

What Were The Findings From The Review Of These Reports?

The findings in these reports are divided by overall site health as below:

Healthy Sites: (75-100%): 282 out of 483 sites = 58.4%

Healthy With Problems Sites: (51-74%): 134 out of 483 sites = 27.7%

Unhealthy Sites (< 50%): 67 out of 483 sites = 13.9%

Healthy Site Analysis (58.4% of total sites or 58.4% of total)

At the majority of sites where negative impacts were observed and documented, the most commonly observed and documented factors that impacted the health of the "Healthy sites" were clearcut logging, cattle grazing, off-road recreational activities, non-native plants and oil and gas. While feral horses were mentioned a number of times, including some instances of multiple mentions on the same site reports, only 14 out of 282 sites mentioned horses primarily and exclusively having a negative impact on the rangeland health. The remainder of the feral horse mentions were linked to sites with negative primary impacts from clearcut logging, cattle grazing off-road recreational activities, oil and gas, and non-native plant species.

Healthy With Problems Site Analysis: (134 out of 483 sites or 27.7% of total)

The most commonly observed and documented factors that negatively impacted the health of the "Healthy With Problems" sites were clearcut logging, off-road recreational activities, cattle grazing, non-native species such as Kentucky bluegrass (KBG), Canada thistle (CIRSARV), and Tall buttercup (RANUACR), and oil and gas. While feral horses were mentioned a number of times, including some instances of multiple mentions on the same site reports, only six of the sites mentioned horses primarily and exclusively having a negative impact on the rangeland health. The remainder of the feral horse mentions were linked to sites that were negatively impacted

primarily by clear cut logging, cattle grazing, off-road recreation activities, oil and gas, and non-native plants.

Unhealthy Site Analysis: (67 out of 483 sites or 13.9 % of total)

The most commonly observed and documented factors that negatively impacted the rangeland health of the "Unhealthy" sites were clear cut logging, off-road recreational activities, cattle grazing, oil and gas, and non-native plants such as Kentucky blue grass, Canada thistle and Tall buttercup. While feral horses were mentioned a number of times, including some instances of multiple mentions on the same site reports, only four of the sites mentioned horses primarily or exclusively having a negative impact on rangeland health. The remainder of the feral horse mentions were linked to sites that were negatively impacted primarily by off-road recreational activities, clearcut logging, oil and gas, cattle grazing, and non-native plants.

What Is The Overall Impact of Wild Horses In The 2015 Rangeland Health Reports?

Based on a review of all the comments, observations and assessments included in the Rangeland Health Reports, the majority of observed and assessed sites where rangeland health was impacted, the sites were impacted primarily by factors such as clearcut logging, oil and gas, off-road recreational activities, cattle grazing and non-native plants. With respect to the impact of wild horses, only 4.96 % of all sites were negatively impacted primarily and exclusively by wild horses, with primary impacts in only in 24 sites out of a total of 483 sites. While there were mentions of horses impacting rangeland health in other sites, these sites were negatively impacted primarily by activities such as clearcut logging, off-road recreational activities, non-native plants, oil and gas, and more. In all of these cases, horses were NOT the primary, or exclusive factors in the reduction of rangeland health.

CONCLUSION

There is a very legitimate cause for concern when it comes to rangeland health in the eastern slopes as identified in the Rangeland Health Reports. There are complex reasons for the declines in rangeland health that are occurring, and many of the challenges created by this decline may be difficult and costly to resolve if they are to be resolved at all. Wild horses are not the primary cause of the vast majority of the problems; they are simply well adapted to the local ecosystems and are continuing to adapt to changes in the landscape being driven by a combination of climate change, cattle grazing, industrial development, off-road recreational and other factors. A continued reduction in wild horse numbers will do little if anything to reverse these changes.