



HORSE WELFARE

AND THE FIVE DOMAINS MODEL

Guidelines for Recreational Trail Horse Riding

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References

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Cover: *Unique opportunities available to Recreational Trail Horse Riders.*



INTRODUCTION

Recreational trail riding provides riders with a unique opportunity to enjoy natural landscapes while building strong partnerships with their horses. When riders act responsibly and with consideration for their needs, they reduce risks, safeguard animal welfare, and minimise environmental impact.

The Australian Trail Horse Riders Association (ATHRA)'s Code of Conduct sets behavioural expectations for its clubs and members as ambassadors for the Association, aiming to educate, guide, and promote safe and environmentally responsible trail horse riding in Australia. ATHRA expects that members will always place the health and welfare of their horse above their own needs or desires. Misuse or abuse of any horse at an ATHRA trail ride or event will be regarded as conduct likely to discredit ATHRA and may be subject to sanction.

Please note: National, State, and Territory laws and regulations take precedence over any horse welfare decisions and actions proposed by ATHRA and/or an organizing club.



PURPOSE AND BACKGROUND

These guidelines support riders in understanding and applying best-practice welfare principles in the context of recreational trail riding. Developed with support from Pony Club Australia and contemporary equine welfare research, the guide explains how the Five Domains Model can be used to improve welfare outcomes for horses.

This approach places strong emphasis not only on the prevention of harm, but on creating **positive experiences** that contribute to a horse's quality of life. Trail riding, when practiced thoughtfully, is uniquely positioned to offer horses many such experiences.





UNDERSTANDING HORSE WELFARE?

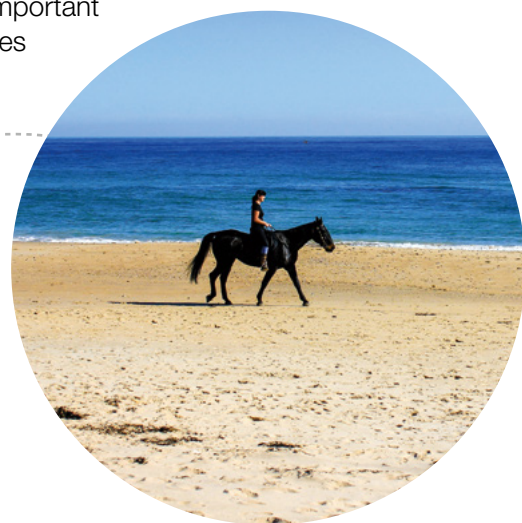
Horse welfare is shaped by a complex interplay of physical, behavioural, environmental, and emotional factors and can be challenging to discuss. While horses have been domesticated for more than 5,000 years, scientific understanding of their needs has advanced rapidly in recent decades. Today, horses are mostly ridden for pleasure and competitive sports, with only a minority of the population engaging regularly with horses and learning horsemanship.

Many traditional practices also no longer align with modern evidence, highlighting the importance of ongoing learning and horsemanship development.

A horse enjoys good welfare when it is healthy, comfortable, well-nourished, safe, free from pain or distress, and able to express behaviours that are important to its physical and mental wellbeing. Positive welfare also requires opportunities for enjoyment, social interaction, exploration, and relaxation.

Our goal is to evolve our practices so that riders can help foster strong, positive human–horse relationships by adopting evidence-based approaches.

Good horsemanship involves both **practical skill** and **scientific knowledge**—a combination that supports the development of safe, respectful, and positive horse–human relationships.



***Above:** From bush trails to open country and sandy beaches, horses and riders embrace every terrain.*

THE FIVE DOMAINS MODEL OF ANIMAL WELFARE

In 1994, Professor David Mellor and Dr Cam Reid proposed a new model for assessing animal welfare. Most recently updated in 2020, the Five Domains Model is increasingly used worldwide to consider the lived experiences of animals under human care.

The model considers welfare across five interconnected domains:

1. **Nutrition**
2. **Environment**
3. **Health**
4. **Behavioural Interactions**
5. **Mental State**

The first four domains evaluate physical and behavioural conditions, while the fifth reflects the horse's overall emotional experience. Importantly, resolving negative states only brings a horse back to neutrality; **good welfare requires the presence of positive experiences.**



Figure 1 (above): Jigsaw illustration showing how the Five Domains of animal welfare interlock to form a comprehensive welfare circle.

A horse experiences good welfare if it is healthy, comfortable, well-nourished, safe, free from pain, fear, and distress, and able to express behaviors important to its physical and mental state, in other words, it experiences “a life worth living.” Good welfare requires disease prevention, appropriate veterinary care, shelter, management and nutrition, a socially stimulating and safe environment, humane handling, and when necessary, humane euthanasia.

THE FIVE DOMAINS APPLIED TO TRAIL RIDING

The Five Domains framework when used in any discipline enables assessment and improvement by considering these five areas. As stated earlier, Recreational Trail riding, when practiced thoughtfully, is uniquely positioned to offer horses many positive experiences

These guidelines interpret and give guidance as to how they may be used in relation to Recreational Trail Horse Riding.

Five Domains Model for Equine Welfare in Trail Riding

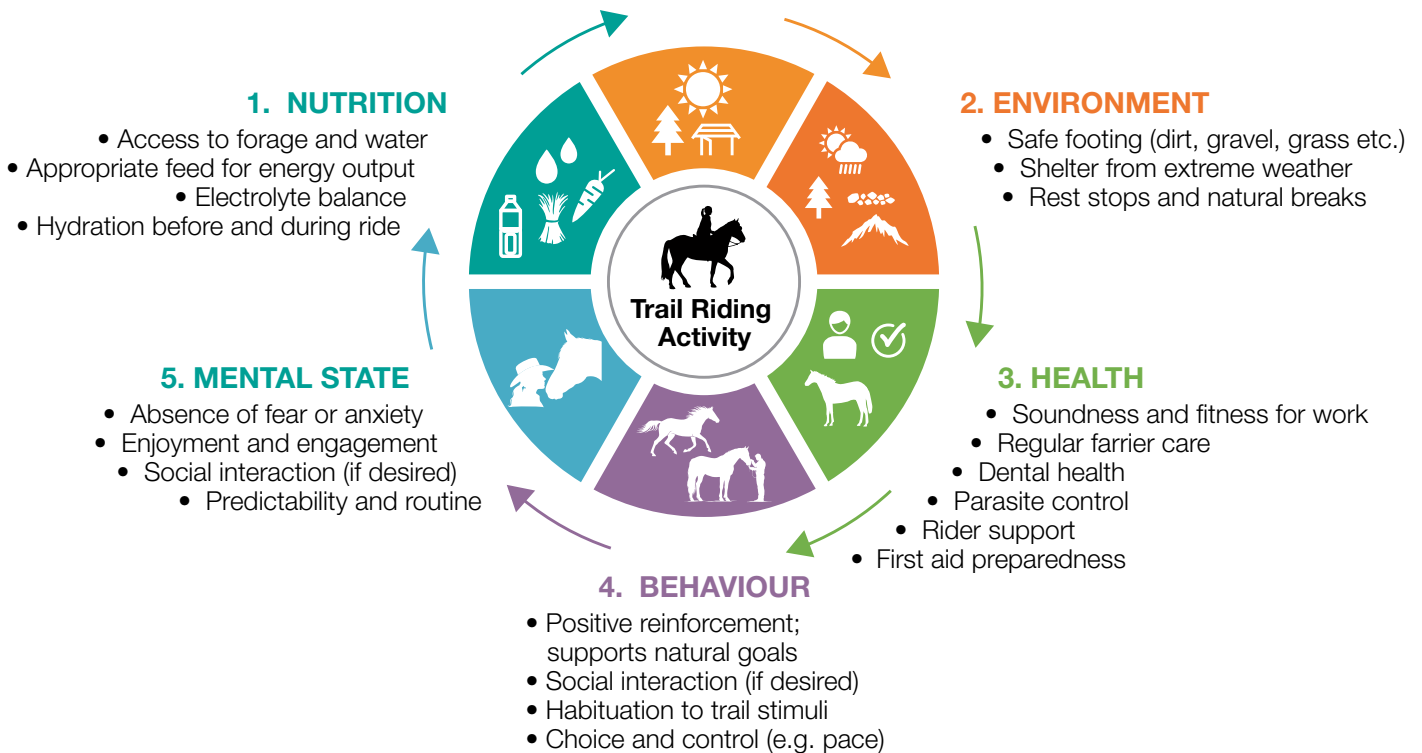


Figure 2: Diagram illustrating the application of the Five Domains Model to trail riding, highlighting key welfare considerations in each domain.

Summary:

Optimal trail riding welfare is achieved by attending to all five interconnected domains, creating a positive experience for the horse and rider.



Nutrition

1



Focus:

Balanced diet suitable for workload and individual needs, including roughage and pasture access, and clean water supply. Feeding should match age, body condition, and exercise level.

Trail Riding Considerations:

Provide adequate forage (hay or pasture), supplements (including electrolytes) if needed, and fresh water throughout the ride and in the camp.

Guidance:

- A 500kg horse in moderate to heavy work can require roughly 40-70 litres of water per day.
- A horse, even in moderate work, requires 2.5% of its body weight in food. For a 500kg horse that is 12.5kg of forage and concentrates. Concentrates should make up no more than 0.5% of their body weight. Access to roughage is crucial due to the horses specialized digestive system.
- On a long ride, it is desirable to let your horse graze during a break to reduce the likelihood of ulcers, to maintain energy and for relaxation and confidence, as long as the area is safe and you can still maintain control.

Common Issues:

Dehydration, electrolyte imbalance, inadequate calories, poor-quality feed, or rushed pre-ride routines.

Left to right: Providing roughage in the camp. Allowing horses water during the ride can prevent dehydration and metabolic issues.

Environment

DOMAIN

2



Focus:

Safe, comfortable, stimulating environment.

Trail Riding Considerations:

Select trails with safe footing and avoid hazardous terrain.

- Be aware of weather conditions and adjust ride plans accordingly.
- Provide shade, rest breaks, and opportunities for horses and riders to relax.
- Maintain floats/trucks to ensure ventilation, safety, and secure footing.

Guidance:

- A horse's thermoneutral zone is typically between **5°C and 25°C**. Horses are generally much better adapted to cold conditions than humans, although this depends on factors such as coat condition, age and acclimation. It is important to rug horses appropriately. Over-rugging should be avoided, as it can increase the risk of heat stress.
- Transport horses in safe, well-ventilated, comfortable, well-maintained floats or trucks and be aware that the temperature in the float can be 5°C - 10°C higher than the outside temperature.
- Carefully plan long journeys with regular rest and water access. Horses should have a rest break every 2-3 hours on long journeys.
- Be aware of the impact of high temperatures and humidity which can lead to heat stress. When temperatures exceed 30°C limit strenuous work with frequent rest breaks, above 35°C stop non-essential riding.
- Plan rides to avoid dangerous and/or unsafe trails and terrain and ride to both the riders and horses limitations.

Common Issues:

Heat stress, unsafe trail surfaces, inadequate rest, over or under-rugging, and poor transport conditions.

Left to right: A safe and pleasant environment to ride in. Horses appropriately rugged in the cold alpine area.

Health

3



Focus:

Preventive care, soundness, comfort, and early detection of problems.

Trail Riding Considerations:

- Maintain regular preventative programs including veterinary, dental, and farrier care.
- Monitor body condition and fitness for purpose.
- Use well-fitting saddles, bridles, and equipment.
- Prepare a suitable equine first aid kit for all rides.


Guidance:

- At a minimum it is recommended that Trail Riding Horses have annual vaccinations appropriate to the region where they live and work. They should have targeted worming based on faecal egg counts, annual dentals and hoof trimming or shoeing every 6-8 weeks.
- Grazing should be managed to reduce contamination by parasites and toxic plants.
- Horses both at home and on the trail, should be inspected daily for injury or illness.
- Ensure properly fitted saddles and bits. Avoid harmful training aids.
- A rider's weight should be matched to the horse's size, age, condition and ability to carry the rider's weight such that it doesn't place undue strain on the horse. Research is now suggesting that the combined rider and tack weight should not exceed 20% of horse weight.

Left to right: Annual dentals are very important to maintain health and prevent teething problems. A safe rider with a horse illustrating confidence and comfort.

BODY CONDITION SCORE

SIX POINT SCALE 0 TO 5



PONY CLUB
AUSTRALIA

0. VERY POOR

- Very sunken rump
- Deep cavity under tail
- Skin tight over bones
- Very prominent backbone and pelvis
- Marked U shaped neck

1. POOR

- Sunken rump
- Cavity under tail
- Ribs easily visible
- Prominent backbone and croup
- U shaped neck – narrow and slack

2. MODERATE

- Flat rump either side of backbone
- Ribs just visible
- Narrow but firm neck
- Backbone well covered

3. GOOD

- Rounded rump
- Ribs just covered but easily felt
- No crest, firm neck

4. FAT

- Rump well rounded
- Gutter along back
- Ribs and pelvis hard to feel
- Slight crest

5. VERY FAT

- Very bulging rump
- Deep gutter along back
- Ribs buried
- Marked crest
- Folds and lumps of fat

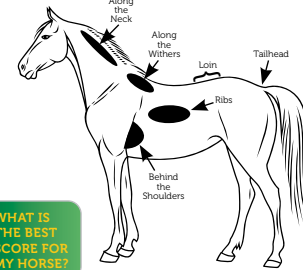
Body condition scoring provides a useful and objective method of monitoring body condition. Body condition, expressed as fatness, is the most reliable indicator of the suitability of a horse's diet and health.

METHOD OF ESTIMATION

- Assess visually and by feel, the horse's pelvis and rump, back and ribs and neck. During winter, a long heavy hair coat complicates visual appraisal. You need to run your hands over the horse to get an accurate score.
- Give those areas individual scores using a scale of 0 (very poor) to 5 (very fat).
- Intermediate assessments can be given half scores.

CONDITION SCORING

Condition scoring of horses involves an assessment of certain parts of a horse's body for 'fatness'. The most commonly used sites are along the neck, along the withers, the loin, tailhead, ribs and behind the shoulder as shown below.



WHAT IS THE BEST SCORE FOR MY HORSE?

Type of horse	Suggested score
Young, growing horse	3
Pregnant or lactating mare	4
Breeding stallion	3-4
Performance horse	3
Idle horse	3

Poor body condition is not always due to lack of feed; it could be related to:

- parasite infestations
- poor dental health
- chronic injury or illness
- advanced age or
- lack of mobility affecting the horse's ability to forage.

Figure 3: Diagram illustrating the Body Condition Score, courtesy Pony Club Australia.

- The weight and condition of every horse should be monitored to avoid welfare problems. This involves observing and feeling fat cover on the neck, wither, shoulders, ribs, loin and pelvis. The ideal body score for a horse is between 3 and 4.
- Signs of normal health should be evident for all horses when at rest.
- Horses outside normal parameters should not participate in the ride or return to the camp for appropriate treatment.

	Normal	Of Concern
Temperature	36.5-38.5°C	Above 40°C
Heart Rate	25-45 beats/min	Above 60
Respiration	8-16 breaths/min	Above 30
Skin Recoil	Elastic (1-2 secs)	Delayed
Visual/Nasal	Clear eyes/nose free of discharge	Mucous, coughing
Gait	Even, rhythmic	Lop-sided, head bob
Body	Absence of injury	Swelling, broken skin

Common Issues:

Undetected soreness or illness, poor saddle fit, overweight/underweight horses, misuse of training aids, respiratory disease and lameness. Inadequate fitness for the length and or type of ride.

Behavioural Interactions



Focus:

Facilitating natural behaviours and appropriate social contact remembering that horses are herd animals and derive comfort from contact with other horses.

Trail Riding Considerations:

- Allow horses to look, sniff, graze, roll, or interact socially when appropriate.
- Provide calm, consistent handling.
- Manage introductions to unfamiliar horses in the camp and on the trail.
- Permit horses to stop briefly to observe and process new stimuli.

Guidance:

- The inability to express natural behaviours is a common cause of stress that can lead to vices, resistance, lack of cooperation and lethargy.
- The introduction to new horses in the camp and on the ride should be supervised.
- Stopping when out riding should be allowed but on the rider's terms. Keep the horse busy but recognize that some 'scary' things could require the opportunity to stop, look and breathe (30 seconds).
- On return to the camp, allow horses time to graze, roll if appropriate and interact socially.

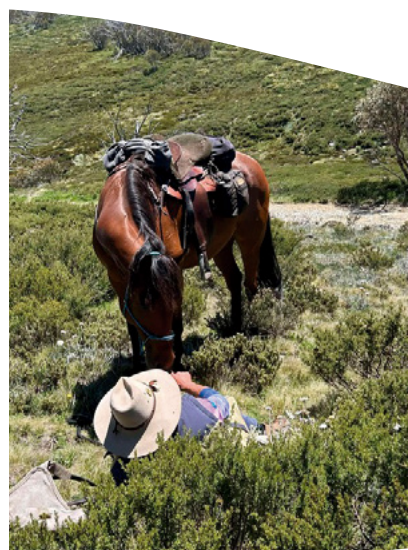
Common Issues:

Social isolation, rushed handling, overcrowding, or restricting movement.

Left to right: Horses are naturally curious, allowing a horse to roll after a ride and a wash is a really positive note to finish on.

Mental State

DOMAIN



5

Focus:

Emotional wellbeing, including comfort, confidence, and enjoyment.

Trail Riding Considerations:

- Use training that rewards curiosity, relaxation, and effort. Avoid punishment-based methods that create fear or confusion. Establish predictable routines to build a horse's sense of security.
- Consider pain or discomfort before attributing behaviours to disobedience. Isolated horses become vigilant, disrupting rest.

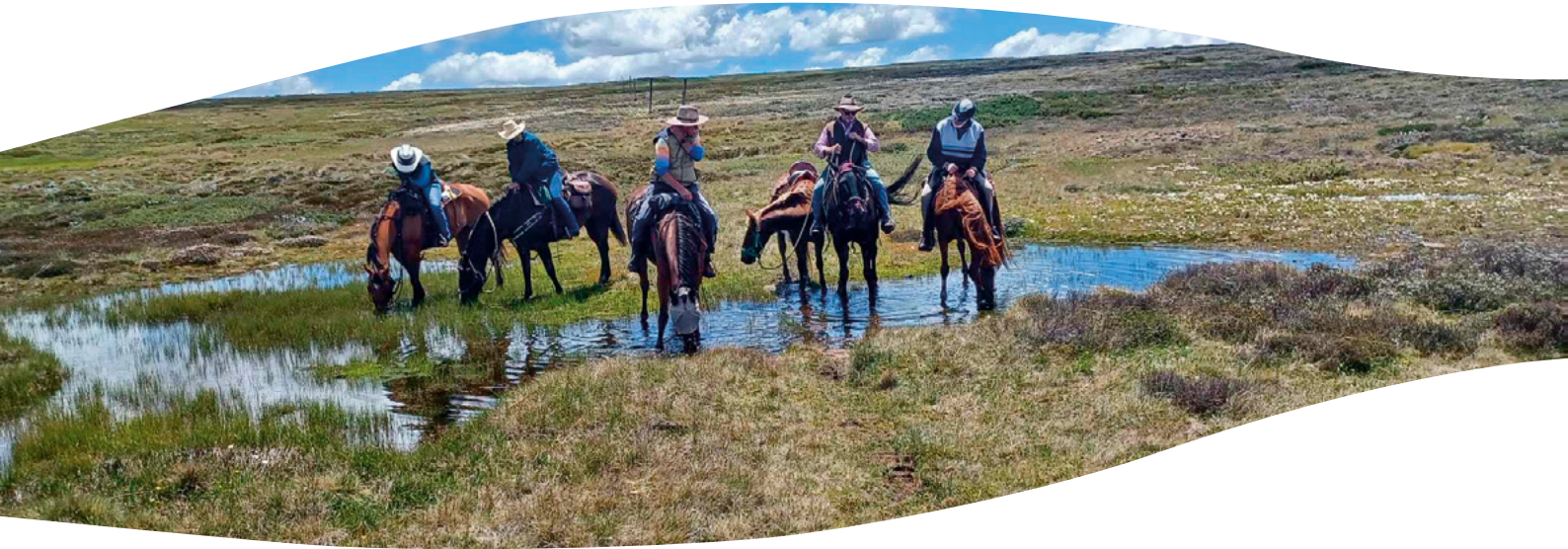
Guidance:

- Supporting a horse's mental health is just as important as managing their physical wellbeing. Horses are deeply emotional herd animals, so stress, anxiety and frustration can show up in subtle ways.
- Horses require predictability. Routine gives them security.
- Reward relaxation, curiosity and effort when both under saddle and in the camp.
- Avoid punishment-based training which creates fear and tension.
- Check for pain such as teeth, saddle fit, hooves, back and poll before assuming "behaviour".
- Horses read emotional energy extremely well, so calm, patient behaviours are important both on the ground and in the saddle.
- Positive Indicators: Soft eyes, relaxed posture, rhythmic breathing, interest in surroundings.

Common Issues:

Anxiety, chronic stress, hypervigilance, frustration, or negative associations with riding.

Left to right: Three relaxed horses in the paddock. A chance for both the horse and rider to rest part way through the ride.



SUMMARY

By applying the Five Domains Model, riders can develop a holistic understanding of their horse's needs and make informed decisions that promote both safety and welfare.

Optimising welfare is not only about avoiding harm but about creating a life for horses that is healthy, engaging, and rewarding.

Trail riding offers horses unique opportunities for positive experiences—fresh environments, social interaction, exploration, and relaxation—when carefully planned and thoughtfully managed.





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