



SA EQUINE
HEALTH & PROTOCOLS
EXPORTS SOUTH AFRICA



African horse sickness control

Movement report

2022

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**Western Cape
Government**
FOR YOU

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Introduction

This is the fifth detailed report on equid movements in South Africa with respect to controls implemented to mitigate the risk of African horse sickness virus (AHSV) entering the AHS controlled area of the country. The initial report encompassed the 2017/2018 AHS season and is available online¹: it provides a more detailed explanation of the various movement types. Since 2019² the reporting period was set to the calendar year. For the report below, the period evaluated is the 2022 calendar year. We differentiate between movements from the infected part of South Africa and those that occur within the AHS controlled area, the latter only where movements occur to a zone of higher control. Wild equid movements are also evaluated as well as more detail on those stepwise movements that required a stopover quarantine period prior to entry into the AHS controlled area.

Permit based movements – infected zone to AHS controlled area

This section deals with any equid moving from the AHS infected part of South Africa directly into the AHS controlled area in the Western Cape Province. Movements from the infected zone require an AHS risk status classification which is reported by the State veterinarian (SV) of origin in the form of an area status declaration (ASD). An ASD report has been published for 2022³.

Domestic equids

A total of 1559 (5% down from 1640 in 2021) movement events consisting of 3333 (3348 in 2021) domestic equids (all horses), occurred in 2022, with an average of 2 equids moving per

¹ <http://jdata.co.za/myhorse/documents/infographics/Reports/2017%202018%20Movements%20Report.pdf>

² [10.5281/zenodo.4316374](https://zenodo.org/record/4316374)

³ <https://myhorse.jshiny.com/myhorse/landing/resources/reports/2022%20AHS%20Area%20Status%20Declarations%20Report.pdf>

movement application. The most horses moved were Thoroughbred's, with 52% of the total representing this breed (Table 1). The remaining movements were evenly spread across breeds with the only other breeds moving relatively frequently being American Saddlebreds (7.1%), SA Warmbloods (6.8%), Arabians (5.4%), Hackney's (4.7%) and Vlaamperde (2.5%). This breed breakdown is similar to previous years. It should be noted that these are not necessarily racehorses as Thoroughbreds are widely used across all disciplines such as show jumping and dressage as well as for pleasure riding movements, and this data does not distinguish between racehorses or horses used in other sectors.

Table 1: Domestic equids moved, by breed, in 2022 into South Africa's AHS controlled area from the AHS infected zone

Breed	Total moved	% of total
Thoroughbred	1730	52%
American Saddlebred	237	7.1%
SA Warmblood	227	6.8%
Arabian	180	5.4%
Hackney	159	4.7%
Vlaamperd	84	2.5%
Other/Cross breed	715	21.5%
Total	3333	

Figure 1 shows the time series analysis of domestic equids moved. As in the previous year, most equids moved between August-December 2022. The AHS surveillance zone remained the most common destination (66.1%, down from 70.8% 2021) for equids moved (Table 2). The free zone as a destination was 10.8% of equids moved: an increase from a proportion of 6.75% in 2021.

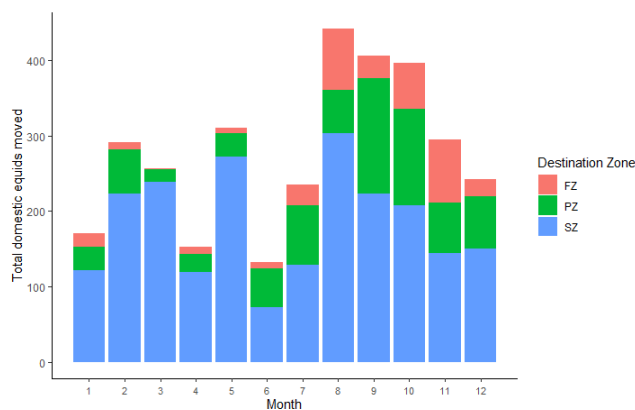


Figure 1: Time series plot of total domestic equids moved from the AHS infected area, and their destination within the AHS controlled area during 2022

Destination	Total moved	% of total
Free zone	360	10.8%
Protection zone	769	23.1%
Surveillance zone	2204	66.1%
Total	3333	

Table 2: The destination zone of domestic equids moving from the infected area into the AHS controlled area of South Africa in 2022

Figure 2 gives an indication of the primary origin of equids moving into the AHS controlled area. In this case we have categorised the movement by the State Veterinary area of origin. These areas are specifically labelled if 100 or more equids moved from that region during the year. The main province of origin was the Western Cape Province, with the George, Swellendam and Beaufort West State Veterinary areas most represented. These three areas of origin accounted for 41% of all equids moved from the infected area during the year. Kwa-Zulu Natal (Umgungundlovu, Ethekewini), Gauteng (Germiston) and Eastern Cape (Port Elizabeth) were most represented outside of the Western Cape. Interestingly, Kimberley (n=72) and Heilbron (n=52), represented in 2021, did not feature substantially in 2022. The eight labelled areas in Figure 2 accounted for a total of 79.7% of all domestic equids moved during the year.

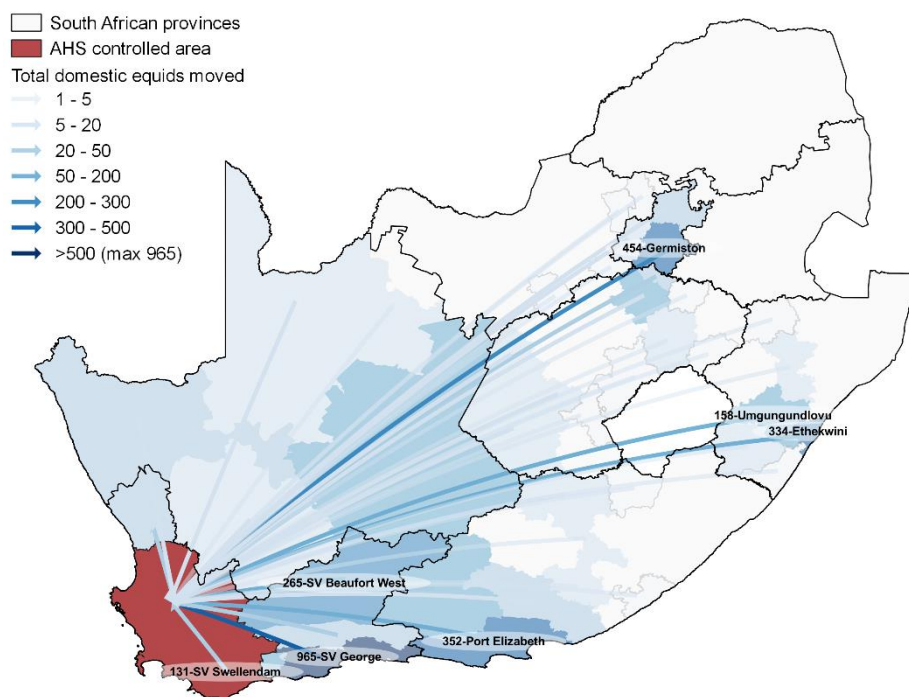


Figure 2: The total number of equids per State veterinary (SV) area of origin that moved into the AHS controlled area in 2022. Areas are labelled if 100 or more equids moved from the region during the year. Note the Swellendam SV area intersects the AHS controlled area – movements in this case are only from the AHS infected area of that SV area.

Stop-over quarantine (SOQ) movements

The introduction and description of stop-over movements has been detailed in previous reports (see introduction on page 1). A total of 7 SOQ facilities (Figure 3) were used during 2022, all in the AHS infected zone. All Gauteng facilities are vector protected facilities. 379 (up from 303 in 2021) horses moved under this protocol. All stop-over facilities used in 2022 were within the Western Cape boundaries except for the Gauteng vector proof facilities.

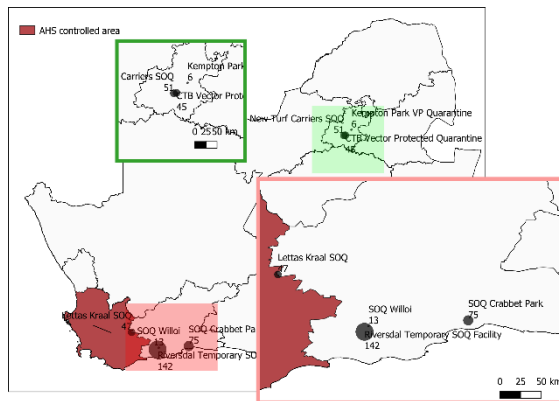


Figure 3: Facilities used for stop-over quarantine movements during 2022 with proportional circles representing the total number of equids that used these facilities.

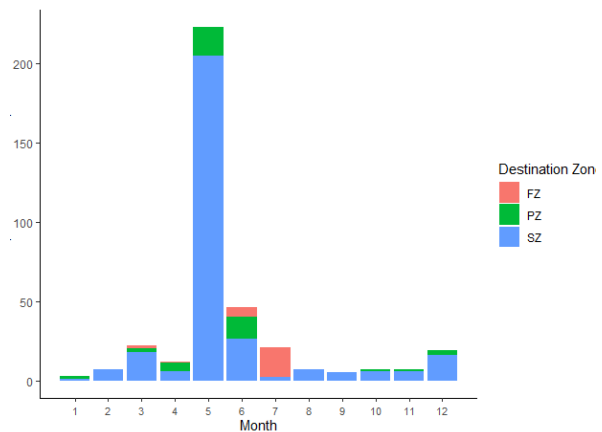


Figure 4: Equids moving under the stop-over quarantine protocol during 2021 with their month of movement and destination shown.

Figure 4 shows the temporal trend of the horses that moved in this fashion. Over the year the trend is similar to that of 2021 with the exception that June was the busiest month in 2021 compared to May in 2022. The destination of these movements is also shown with the surveillance zone being the primary destination, which mirrors the general movement trend (see Figure 1).

Wild equids

A total of 73 (compared to 80 in 2021, 34 in 2020 and 26 in 2019) wild equids (all zebra) were moved into, within or from the AHS controlled area during 2022 (Figure 5). All were Burchell's zebra (aka Plain's zebra - *Equus burchelli*).

		FROM			
		IZ	PZ	SZ	FZ
TO	IZ	NA	22	0	0
	PZ	0	10	19	0
	SZ	0	0	22	0
	FZ	0	0	0	0

Figure 5: Number of zebras moved during 2022 and associated with the AHS controlled area. The zone of origin is shown horizontally, and the zone of destination is shown vertically. The blocks below the dashed red line indicate movements from a zone of lower control to a zone of higher control.

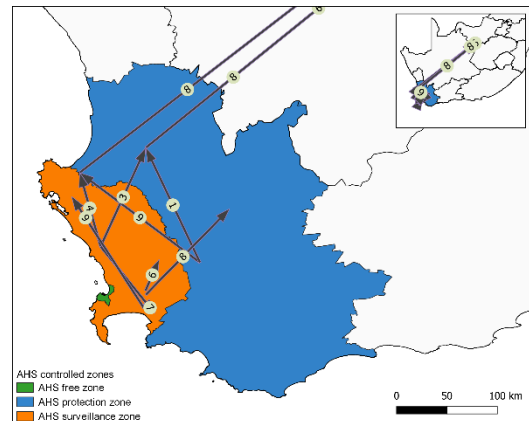


Figure 6: All zebra movements during 2022 that were associated with the AHS controlled area. Numbers on each line represent the total moved for each of the movements (n=11) that occurred. The arrow represents the origin and destination of each movement in relation to the AHS control zones underlying the movement.

As in the previous analyses zebra generally move during the colder winter months (Figure 7) even though the only official constraint for zebra movement temporally is when they originate in the AHS infected zone – this did not occur in 2022.

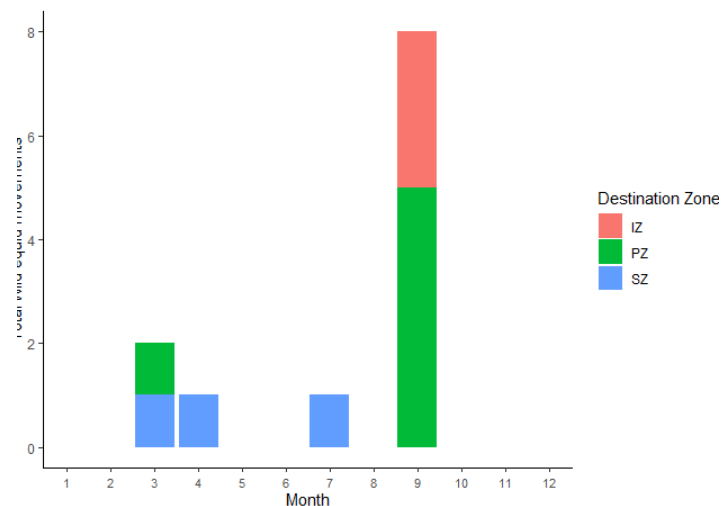


Figure 7: Zebra movement events (n=11) during 2022 with their month of movement and destination shown.

Concessions, declined and retracted permits

The purpose of permits issued for movements from the AHS infected zone into the AHS controlled area is to ensure AHS risk is mitigated through vaccination, health checks and AHS status at origin declarations. During 2022: 11 horses were declined movement due to passport non-compliance or lack of information on application (n=1); 38 horses were declined due to vaccination non-compliance; and 59 horses were declined due to a high-risk AHS status at origin. Permits were retracted for 8 horses due to a change in AHS risk status before movement occurred. Two horses received vaccination requirement concessions – this occurred for veterinary care in the AHS controlled area and required post arrival vector protected quarantine (ref 12925).

Pre-notification only based movements - within controlled area

Movement within the AHS control area to a zone of higher control requires that notification of movement occurs within 72 hours of movement in place of a permit being issued. The passport, vaccination and health certification requirements are otherwise the same as for a movement into the AHS controlled area. A total of 2876 (up from 2728 in 2021) equids moved in this fashion during the year: 2868 horses, 1 mule and 7 donkeys. Most equids that moved within the controlled area were Thoroughbreds (70%). Most (62% - and like the 70%, 74% and 77% in 2021, 2020 and 2019 respectively) moved from the AHS protection zone to the AHS surveillance zone (Figure 8).

An important consideration for these movements is that there are a considerable number of horses that move within the AHS controlled area on the multiple movement permit system, which is a same-day return movement licensing system allowing horses to move in this fashion without pre-notification of movement. The information reported here refers to movements where horses would generally not be returning to their origins on the same day.

		FROM	
		PZ	SZ
TO	SZ	1787	NA
	FZ	355	734

Figure 8: Movements of domestic equids within the AHS controlled area, where horses moved to a zone of higher control, during 2022.

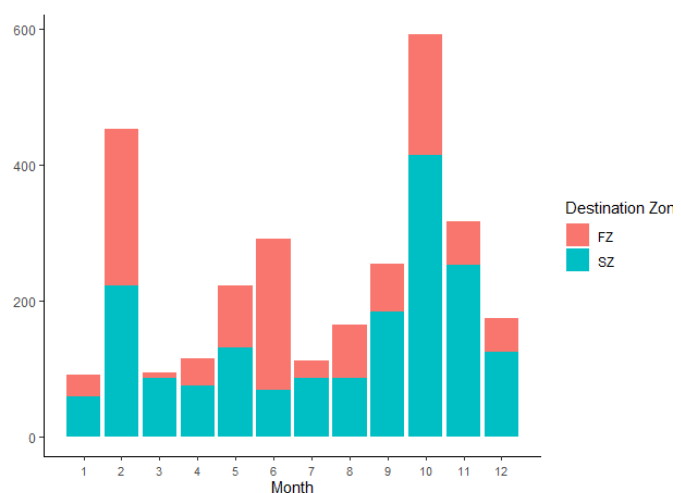


Figure 9: Time series lot of total domestic equids moved and their destination for movements within the AHS controlled area during 2022

The movement pattern over time (Figure 9) is quite like that of infected area origin movements except for the higher levels early in the year (see Figure 1). Generally, the movements between the surveillance and free zone throughout the year will either be equids moving to one of the two veterinary practices that have their premises within the free zone or thoroughbreds in training that move from feeder farms in the controlled area to the training yards in Milnerton.

Discussion

A total of 6209 equids moved into a zone of higher control during the year which is a further 3% increase from the 6028 in 2021, and a further indication of a return to pre-covid levels. Once again it is clear that most movements into a zone of higher control consisted of domestic equines. The AHS surveillance zone remains the most common zone of destination, both for infected area origin and controlled area origin movements. Most movements are associated with Thoroughbred horses.

Movement regulation requires close communication and interaction between various regulatory and State authorities. Movements originated from 42 of the 126 State vet areas in the country (down from the 49 used in 2021).

Stop-over quarantine movements have assisted in facilitating the movement of 379 horses that would otherwise not have moved or would have required a 40-day residency in an AHS low risk area prior to direct movement. While this system is expensive and intensive it promotes the movement of high value horses or critical movements (such as for high-level competitions) and allows control and an acceptable system for the public needing to move horses.

Acknowledgements

The South African Equine Health and Protocols NPC has been the authorized permit issuing body during 2022 and provides this service on behalf of State Veterinary services in the Western Cape. Danielle Pienaar, Liezl Germishuys, Esthea Russouw, Marie van der Westhuizen and Johanne Jacobs are responsible for the day-to-day running of the various movement systems, all supervised by Dr Camilla Weyer and Dr Debra Carter.

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During 2022 the central auditing of movements was continued by the Department of Agriculture, Land Reform and Rural Development and Dr Kerry Loxley has been auditing individual movements in this regard.

We are grateful to all private veterinarians and members of the public who comply with movement control.