

National Horse Identification and Traceability

1. Background

The horse industry in Australia comprises many different sectors including racing, equestrian sports and recreational pursuits. Horses are used in many different pursuits in different locations, are transported more frequently than any other animals, live naturally on average to around 25 to 30 years and can weigh 500 kilograms. Incidents involving horses are common and horses are involved in more human fatalities than any other animal in Australia.

However, there is currently no way to know how many horses are in Australia, where they have travelled or to who they belong. This is significant when it comes to resolving animal welfare issues, managing of disease outbreaks and natural disasters, as well as for rider safety.

Individual animal identification is essential to educate as well as investigate, gather evidence and prosecute offenders under animal welfare legislation. Cases of horse neglect including starvation and poor health that lead to substantial suffering are commonly seen. A major obstacle to prosecuting those responsible is that horses are not required to be identified, and so enforcing the law in these types of cases is often difficult.

Compulsory animal identification has been introduced to help manage domestic companion animals (e.g., microchipping of dogs and cats as required under state/territory legislation or council bylaws), to help protect public safety and farm animals (e.g., the National Livestock Identification Scheme for sheep, cattle, goats and pigs under state/territory biosecurity laws) primarily for disease management and food residue monitoring. However, identification of horses is not included under these laws, despite a costly outbreak of Equine Influenza (this disease is foreign to Australia) in NSW in 2007, and the intermittent detection of other diseases which are transmissible and fatal to humans (e.g., Hendra virus).

Several inquiries and reviews have identified that mandatory horse traceability is required in terms of safeguarding horse welfare and managing priority diseases, including:

- Inquiry into the Australian Horse Industry and an Emergency Animal Disease Response Agreement (EADRA) (Rural Affairs and Transport References Committee 2010)
- Inquiry into the 'Feasibility of a National Horse Traceability Register for all Horses', Commonwealth of Australia (Rural and Regional Affairs and Transport References Committee 2019)
- Inquiry into Animal Cruelty in the Management of Retired Racehorses in Queensland (Martin & Reid 2020)
- The Most Important Participant: A Framework for Thoroughbred Welfare (Thoroughbred Welfare Initiative 2021)

1.1 Current status of horse identification and traceability in Australia

It is estimated there are between 900,000 to 1.8 million horses in Australia (RRATRC 2019); however, this figure cannot be currently validated.

It is estimated that around 37,700 Thoroughbred horses participated in racing in the 2017/18 season (Flash et al 2021) with approximately 13,000 foals being born annually (Thoroughbred Welfare Initiative 2021). For Standardbred horses, there are about 9,800 individual starters in 2021 and

approximately 3,200 foals born in 2021/22 (Source: [HRA Annual On-Line - Starts, Starters, 2:00, Licencees - All Time \(harness.org.au\)](#)).

In addition to the racing industry, there are many other industry groups in the equine sector. Each sector has their own database which is not accessible by other organisations.

The following statistics demonstrate the significant numbers of horses registered under different systems (RRATRC 2019):

- Equestrian Australia maintains a register of 59,097 horses and owners.
- Equestrian NSW has 8,000 members and 22,000 registered horses (the majority - 20,000 - are microchipped).
- The Australian Horse Industry Council has more than 34,000 people and 340,000 horses registered.

In addition, an individual horse could be registered with multiple organisations therefore making it even more difficult to ascertain reliable horse figures.

Without accurate records on the Australian horse population, it is **not** possible to:

- Develop and implement plans for emergencies or natural disasters.
- Plan for resources for emergency disease response such as vaccine volumes.
- Undertake epidemiological research.
- Understand breeding practices and fate of horses in different industries.
- Forecast the needs of the horse industry.

2. Horse welfare and cruelty reports

The RSPCA is responsible for investigating and prosecuting cruelty and neglect of horses in most jurisdictions across the country. In 2020/21, three states reporting the highest number of cases investigated 3791 cruelty reports involving a total of 16,848 horses (see Table 1).

2020-21	Number of horse reports	Number of horses involved
New South Wales	1188	4974
Victoria	1183	6907
Queensland	1420	4967

Table 1: Summary of horse cruelty complaints reported to RSPCA Qld, NSW & Victoria in 2020-21

Based on horse cruelty reports received by RSPCA Victoria the key issues were poor husbandry, undernutrition and lack of veterinary/health care (see Table 2).

Key issues reported	Number of reports
Poor husbandry	539
Underweight	524
Sick/injured with no vet treatment	395

Insufficient food	316
Insufficient shelter	281
Insufficient water	179
Dead animal	60
Improper confinement/tethering	57
Beat/wound	45
Abandon	34

*A single report can include allegations of multiple offences involving multiple animals.

Table 2: Summary of main welfare issues identified from horse cruelty complaints reported to RSPCA Victoria in 2020/2021.

In 2020/21, over \$142,000 was spent on horses brought into care through the RSPCA Victoria Inspectorate alone. This includes feed, veterinary services, dentistry, farrier services, transport and agistment.

One of the many challenges RSPCA Inspectors face with horse cruelty reports is determining who an owner or person in charge is, particularly in cases where no one resides on the property where a horse is found. In some cases, Inspectors have had to leave notices attached to fences asking for the owners to make contact. This mode of communication is obviously not appropriate in emergency situations, where Inspectors must make life and death decisions quickly. Considering the volume of reports of underweight horses, sick horses and those without sufficient food and water, identifying an owner or carer for the horses quickly is paramount to the prevention of further adverse health outcomes. In addition, where there are several horses who have a similar appearance under investigation and requiring repeat visits it can be difficult to identify them individually.

Additional and interlinked challenges faced by RSPCA Inspectors are animal hoarding and backyard breeding. While there are regulations in relation to the numbers of cats and dogs people can keep on their property, as well as laws about selling puppies and kittens to prevent intensive breeding, no such rules exist for horses.

If legislation compelled horse owners to register horses, it would provide authorities with a legitimate reason to discuss options to surrender horses or seek mental health assistance for people with hoarding challenges.

2.1 Animal welfare case study 1 - Difficulties proving ownership

In September 2019, Mr Johnson* was banned for two years from owning more than five horses. At the time, Mr Johnson claimed he owned only five horses - three on one property in the Victorian city of Bendigo and two on another property in Ballarat. However, in June 2020 while investigating a report of abandonment, an Inspector discovered eight horses with limited feed at a property in the town of Buninyong. The property owners identified Mr Johnson as the owner of the horses; however, when asked about these horses in July 2020, Mr Johnson denied owning them. On 2 July 2020, an Inspector re-attended the Buninyong property and observed the eight horses in moderate to very poor body condition and the heavily grazed paddocks with little available pasture. There was no available supplementary food observed in the paddock. Without an identified owner, the Inspector was unable to remove these horses and was therefore forced to leave an 'Intention to Seize' Notice at the gateway.

On 5 July 2020, RSPCA received a telephone call from a witness stating Mr Johnson had moved six horses from Buninyong to Ballarat, leaving two thoroughbreds behind. The following day, Inspectors seized the two remaining abandoned horses; one, a bay mare, was in an emaciated condition with nasal and dental infections. Both horses required and received veterinary care.

On 20 July 2020, an Inspector attended the Ballarat site and confirmed that on that property were the same six horses that were seen to be removed by the accused from Buninyong on the 5 July 2020. In August 2020, after reports that Mr Johnson had not been attending to these horses, they were seized by the RSPCA and sent for veterinary treatment.

During the course of the investigation, the original five horses identified as being owned by Mr Johnson were the subjects of welfare investigations. A mare known as 'Jilly' was hospitalised and despite treatment, the mare and her unborn foal died on the 7 July 2020, due to severe pneumonia, a condition the vet stated would have been "readily obvious, and it would be expected a lay person would have sought prompt veterinary treatment for those health concerns." RSPCA also received reports that Mr Johnson was the owner of another horse at Wendouree. At the time of writing, the case is currently before the court however, RSPCA believes that Mr Johnson was the owner and person in charge of 14 horses between 16 June and 14 August 2020 in contravention of his banning order.

This case study highlights the difficulties encountered by RSPCA Inspectors in managing animal welfare investigations without individual identification and ownership details being readily available. In addition, mandatory microchipping and registration on a central database could have enabled the Inspectors to identify Mr Johnson as the owner of the Buninyong horses when they were first sighted, therefore providing evidence that he had not complied with the maximum number of horses as per the court order. The horses could have been seized earlier, therefore potentially lessening the duration of time they were suffering before receiving veterinary care.

*The name of the accused and the locations used have been changed as the matter is before the courts.

2.2 Animal welfare case study 2 - Hoarding

In a recent hot January, a passer-by observed the carcass of a deceased horse along the front fence line of a rural Victorian property. In response to this and another separate report, a number of Inspectors from RSPCA Victoria attended at the property in the company of an equine veterinarian.

Approximately 110 horses and ponies were visually inspected, most of which were unable to be caught and/or handled. The herd contained approximately 20-30 stallions and colts, with the remainder of the herd being fertile mares and young animals. All horses were able to roam freely within the boundary fences of the property, with the exception of four stallions who were contained in stables or small yards and seven horses who were contained in three fenced corrals. Whilst a high number of the horses and ponies inspected appeared to be of moderate to lean body condition, 12 were identified as being in emaciated to very poor body condition, with a body condition score below 1.5 out of 5 (with 0 being graded as emaciated, and 5 as obese). The feed available on the property was found to be grossly inadequate for the number of horses and ponies present.

An inspection of the rear of the property revealed the carcasses and skeletons of approximately 20 horses and ponies in various states of decomposition, some with pelts still attached.

Under a warrant, 11 of the 12 horses originally identified as being in poor condition were seized. Two of these horses were euthanased due to the severity of their emaciation. The owners of the property were issued with a notice to improve the remaining horses' welfare by destocking, providing appropriate water, feed and veterinary care. The owners did not comply with this notice and the remaining 92 horses and ponies were seized.

In an interview with Inspectors one of the residents of the property said that a relative living at the property owned the majority of the horses, but that some were owned by other people, and that while she was responsible for feeding them, she did not know exactly how many horses were on the property.

A central register would enable Inspectors to identify properties such as this and take a preventative approach, as well as allowing for earlier intervention in cases where animal welfare is compromised. While it is expected that some horse owners may not comply with registering their animals on the central database, the lack of compliance and flow-on legal impacts could become another tool in managing welfare cases.

2.3 Fate of retired racehorses

All horses who race in Australia are microchipped and their movements documented while they are registered within the industry. As this is a requirement under the Australian Rules of Racing, it can be assumed that compliance is high. However, there are gaps in knowledge regarding the location and outcomes of thoroughbreds bred for racing who are yet to race or after they are retired from racing. This is because the racing industry in Australia uses a variety of databases that share some information and rely heavily on users' goodwill to complete data.

There has been a significant focus on increasing community concerns regarding the fate of racehorses due to a lack of transparency and accountability of the number of racehorses who are sent to abattoirs and knackeries. This has led to the racing industry introducing a number of schemes across different jurisdictions to re-train and rehome racehorses. However, as there is no mandatory requirement to report the location of racehorses on an accessible database, information pertaining to racehorses who have exited the industry is not currently publicly available.

For example, the Australian Stud Book (ASB) captures all thoroughbreds born in the country with a life number, microchip and details on parentage. However, unless an owner decides to pursue a racing career and records the foal into the Single National System (SNS/Stable Assist system) or that foal becomes a brood mare, then no further information is captured in the Stud Book. The SNS can access the data from the ASB and is able to capture additional information via a stable return such as whether a horse is retired, spelling or deceased. It does not currently have a field for a Property Identification Code (PIC) but does include fields for addresses so the system is able to capture the first point of exit from the racing industry but cannot follow a horse after this unless the horse is bought or adopted by an existing industry participant who is compelled to record the information, under new traceability requirements that came into effect in May 2021 ([Breed Race Trace](#)).

In addition to the ASB and SNS, most trainers use a third database to manage their horses on a day-to-day basis and provide evidence of compliance with rules of racing. Platforms such as [Prism](#) include detailed information on horse movement and veterinary treatment. The gaps in communication between these systems means it is not possible to trace all thoroughbreds from birth to death. Considering the duplication currently involved in managing racehorses, the development of a central database may provide an opportunity to create efficiencies for trainers.

It is important to note that Racing Australia's systems do include status update reports where communications with a trainer/carer/owner are triggered by a lack of activity on a horse's status for a certain period of time, i.e., six months. Since 2019, it has been mandatory to include the first location of a horse post-racing.

The development of a national database that allows for each racehorse to be individually identified to an owner and location was "strongly recommended" by the Thoroughbred Aftercare Welfare Working Group.¹

¹ Thoroughbred Aftercare Welfare Working Group, 'The most important participant: A Framework for

“Such a database, that would require all horses to be registered, is the only way the thoroughbred industry can know what happens to its horses. Without this data, it will not be able to ensure these thoroughbreds are well cared for. Nor can it provide the community with robust data on the outcomes of horses that transition out of the industry.”²

3. Biosecurity requirements

The threat and existence of exotic disease incursions across various animal species is increasing. Thus, it is essential that processes are implemented in Australia to allow for rapid detection, containment and where required eradication of incursions. This requires individual animal identification and location recorded on a national database. No such system exists for horses in Australia which means that states and territories are ill-equipped to respond effectively to disease incursions. It has been shown that this leads to substantially higher costs associated with eradicating disease outbreaks and subsequent compensation as well as disruption to the industry. In addition, an inefficient emergency disease response results in poor welfare outcomes due to an inability to minimise the number of animals suffering from ill health and secondary impacts.

3.1 Biosecurity case study 1 - Equine Influenza outbreak in NSW

A joint report³ by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) and the New South Wales Department of Primary Industries (NSW DPI) found the 2007 Equine Influenza (EI) outbreak spread to more than 10,000 properties and required the vaccination of more than 140,000 horses. This outbreak locked the industry down for six months and it took 11 months for the industry to recover. The report estimated the cost of the outbreak to the horse industry was approximately \$350 million; however, other organisations such as the Australian Veterinary Association and Australian Horse Industry Council believe the outbreak could have cost the industry up to \$2 billion. In addition, the total cost of eradicating the EI outbreak was \$571 million including compensation to offset the disruption to industry. Even utilising the conservative estimate of cost to industry (\$350 million) and adding it to the costs incurred by the Commonwealth and states and territories in eradication and compensation, this brings the overall cost of the outbreak to \$921 million.

In 2010, after the outbreak, the Senate Rural Affairs and Transport References Committee conducted an inquiry into the Australian horse industry and an Emergency Animal Disease Response Agreement (EADRA), with the inquiry indicating support for the compulsory registration of all horses and the establishment of a national register.⁴

During the 2019 Senate inquiry into horse traceability, the Australian Veterinarian Association stated that during the outbreak, government authorities did not have the required information estimate how many horses were at risk, and how many horses were in the buffer zone to target for vaccination. Despite the significant impacts resulting from this outbreak, steps have not been taken to address the issue of horse identification and traceability.

Thoroughbred Welfare', *Thoroughbred Welfare Initiative* (2021), 60, <https://static1.squarespace.com/static/5e3788c2c2cd171e7c97ba5b/t/61a402a242660c71666b2b74/1638138541855/TW+The+Most+Important+Participant+-+A+Framework+For+Thoroughbred+Welfare.pdf>, accessed 27 Apr. 2022.

² Thoroughbred Aftercare Welfare Working Group, 'The most important participant: A Framework for Thoroughbred Welfare', 12.

³ H. Ahmed, et al., 'Estimating the value of Australian biosecurity arrangements for equine influenza since the 2007 outbreak', *ABARES & NSW Department of Primary Industries* (December 2020), https://daff.ent.sirsidynix.net.au/client/en_AU/search/asset/1031241/0, accessed 27 Apr. 2022.

⁴ Rural Affairs and Transport References Committee, 'Australian Horse Industry and an Emergency Animal Disease Response Agreement', *Commonwealth of Australia* (November 2010), https://www.aph.gov.au/~media/wopapub/senate/committee/rrat_ctte/completed_inquiries/2010-12/oz_horse_industry_2010_43/report/report.ashx, accessed 27 Apr. 2022.

Similarly, a veterinarian from the Centre for Equine Infectious Diseases at The University of Melbourne, who worked in the EI response noted that the lack of electronic identification of horses significantly hampered tracing efforts from the initial detection of symptoms at Eastern Creek and the Maitland Horse Event (the next day). It took several weeks to ascertain that horses from the Maitland event travelled to 16 different regions after the event (see Figure 1).

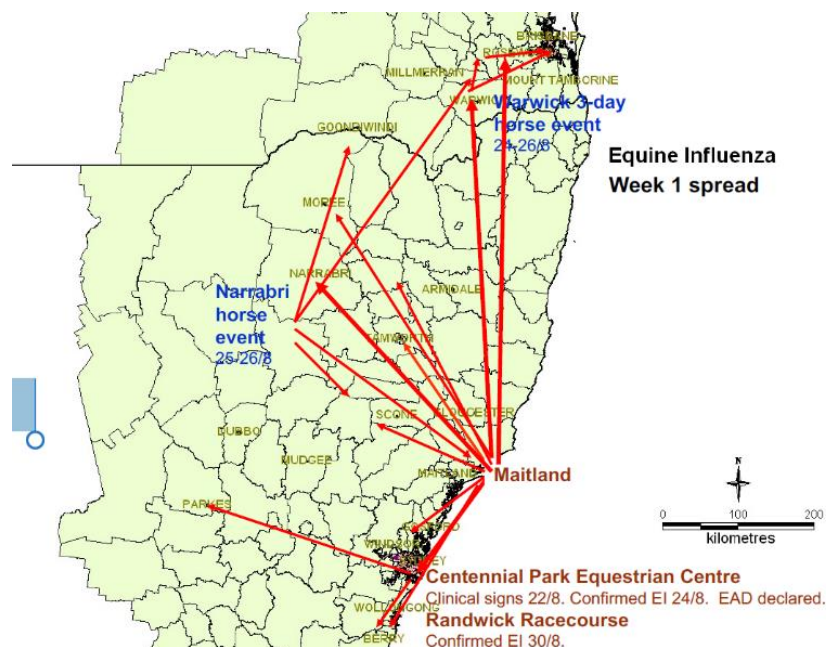


Figure 1. Spread of Equine Influenza through horse movement from Maitland, New South Wales. (Courtesy of NSW Chief Veterinary Officer).

Three key issues resulted from not having an accurate picture of the number of horses in the New South Wales and Queensland outbreak zones:

- Lost time calling property owners to find out how many horses they had.
- Logistical difficulties determining how many vaccines to supply.
- Vaccine coverage.

4. What type of traceability system is needed?

The RSPCA believes a national horse traceability system (NHTS) should be able to answer the following key questions:

- How many horses are there in Australia and in different geographic regions across the country?
- Where are individual horses now, and where have they been in the past?
- Who is the person responsible for an individual horse and how they can be contacted?

The recommended components for a NHTS (see Figure 2) are:

- Individual horse electronic identification
- A central database that captures horse movement and end of life details

- Premise registration
- Support and education for horse owners and industry to understand their obligations in adopting this system.
- Compliance and auditing
- Sustained funding
- Ability to add new functionality

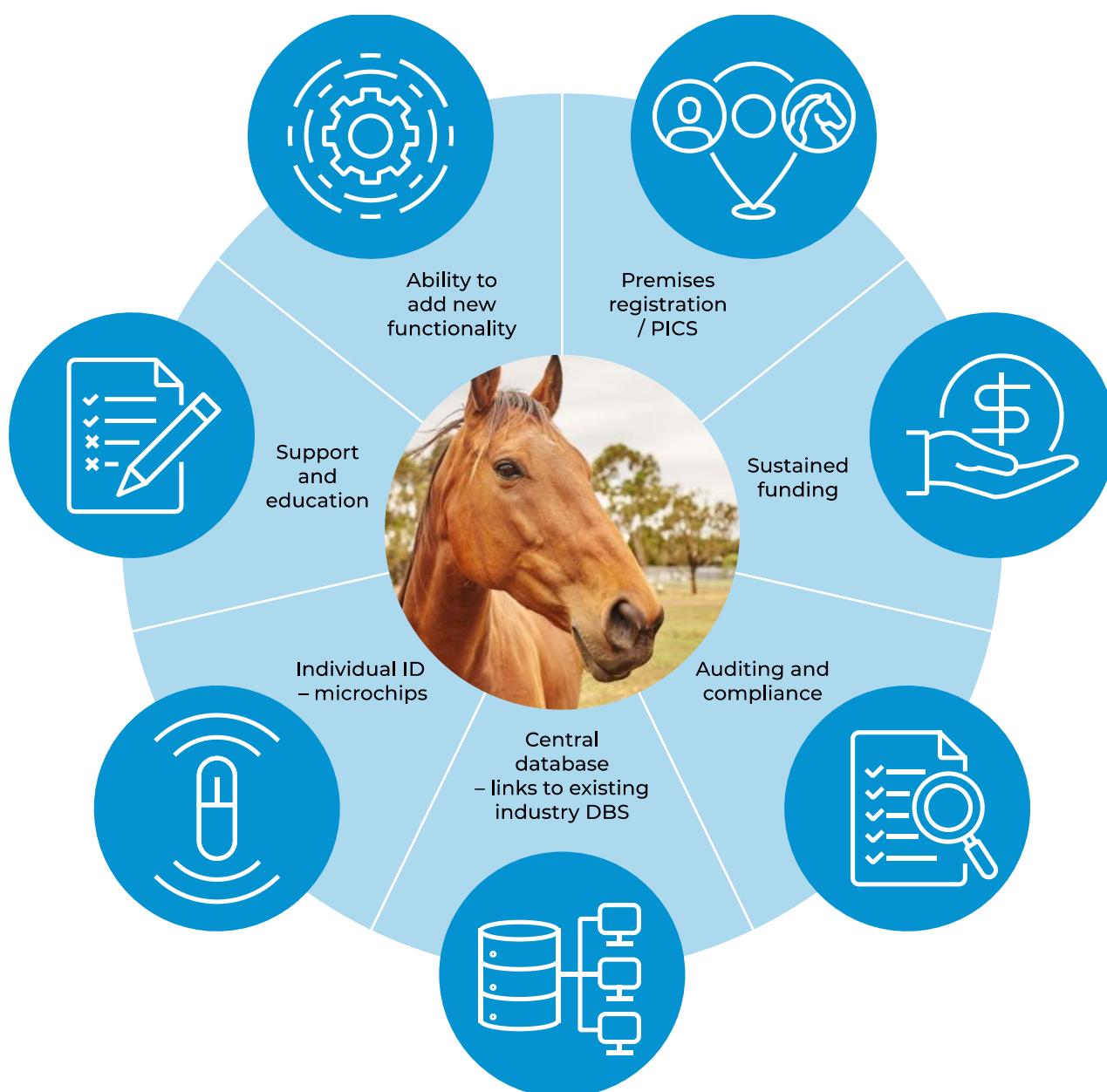


Figure 2: Key components of a proposed national horse traceability system

The proposed system is similar to those already implemented or being implemented in other countries such as the United Kingdom and Canada and should be considered as the preferred model for horse traceability.

4.1 Individual horse electronic identification

Unlike cats, dogs and livestock, at present, there is no overarching individual identification system for horses. In fact, a 2018 survey of 505 horse owners in Australia⁵ found that almost one in five participants reported that their horse had no permanent objective identifier (e.g., a brand).

Under recommendation 3 (item 5.26) in the report of the 2010 Senate Inquiry into horse traceability,⁶ microchips are deemed to be an integral part of the data requirements for biosecurity.

To achieve an effective biosecurity function, the data requirements of a national horse traceability register needed to fulfil this function would include the following;

- a microchip number (which includes a universal equine life number);
- a Property Identification Code;
- owner's contact details and location; and
- the origin of the source data.”

It is imperative that one type of identification is used for consistency.

The RSPCA believes that microchips are the best method of individual identification. This is due to them being:

- a permanent, unique form of identification;
- an already available, widely used technology (already used by the racing industry, Australian Continental Equestrian Group etc.);
- used for horse traceability internationally.

Where horses are microchipped, RSPCA Inspectors have a tool to easily determine a horse's identity and owner details to allow them to make swift contact with the owner. Microchipping would also allow Inspectors to easily identify individual animals where repeat visits are required for assessment and/or treatments without the risk of misidentification.

In 2017, the NSW DPI surveyed the state's horse industry. Based on the 2243 responses received (representing more than 42,000 horses), 70% of respondents were supportive of mandatory horse identification and a central database.⁷

To facilitate rapid broad scale uptake of microchipping, consideration could be given to develop a recognised training course to ensure sufficient skilled microchip operators are available to horse owners across Australia.

4.2 Central database

In addition to the racing industry, there are many other industry groups in the equine sector.

According to the Senate report:⁸

- Equestrian Australia maintains a register of 59,097 horses and owners.

⁵ K. R. Thompson et al., 'Horse Husbandry and Preventive Health Practices in Australia: An Online Survey of Horse Guardians', *Journal of Applied Animal Welfare Science* (2018), 3, <https://doi.org/10.1080/10888705.2018.1428099>

⁶ Rural and Regional Affairs and Transport References Committee (2019), 'Feasibility of a National Horse Traceability Register for all Horses', 91.

⁷ NSW DPI, 'Horse identification and traceability survey results', *NSW DPI* (4 September – 31 December 2017), <https://www.dpi.nsw.gov.au/animals-and-livestock/horses/identification-and-traceability/horse-identification-survey-results-snapshot>, accessed 27 Apr. 2022.

⁸ Rural and Regional Affairs and Transport References Committee (2019), 'Feasibility of a National Horse Traceability Register for all Horses', 3.

- Equestrian NSW has 8,000 members and 22,000 registered horses (the majority - 20,000 - are microchipped).
- The Australian Horse Industry Council has more than 34,000 people and 340,000 horses registered.

It was acknowledged throughout the 2019 Senate inquiry that a single horse could be registered with multiple organisations therefore making it even more difficult to ascertain reliable horse figures.

In reviewing the success and learnings from other animal traceability systems such as domestic pet registration and the systems for identification and movement of farm animals in Australia, the RSPCA believes a national system should include the following:

- a. Horses registered with their microchip details; location identifier; owner/carer (person in charge) contact details including mobile number, address and email.
- b. A process of verification to ensure the identity of people entering and updating information - a digital ID similar to those already used by Medicare and other online government services. This would also enable differing levels of access for authorised officers.
- c. Easy interface to ensure all members of industry are able to upload information, report movement from locations and update details including end of life information, status and export details.
- d. Access for staff at abattoirs and knackeries to provide end-of-life status update.
- e. A system to ensure records are kept up to date and legislation to support this.
- f. A free search function that the public can use to ascertain basic information on horses - subject to privacy requirements.
- g. Communication function to enable alerts to be sent directly from the system to email/SMS.

4.3 Premise registration

An effective horse traceability system must include a nationally recognised location identifier. Such a system exists for farm animals - this is the Property Identification Code (PIC). While PICs are a useful tool for biosecurity, the reasons why these can't be solely relied on for a national horse traceability system was clearly outlined in the Senate Committee report:⁹

State and territory agencies issue properties under their jurisdiction with Property Identification Codes (PICs), consisting of eight letters which identify a property spatially. A PIC does not provide a record for an individual horse, nor does a PIC record the number of horses found on a property or contact information of horse owners because only the landowner is required to be registered for a PIC. The DPI explained:

Whilst around Australia we all require a horse to be identified with a property identification code or awareness that they might be on a property, if you've got 10 horses it doesn't actually identify which horse is which and where they're going to, so that's a real issue.

The use of PICs varies between jurisdictions and organisations. For example, in Victoria it is a requirement that any horse given away or sold on any platform must have an accompanying PIC. In Western Australia, registered livestock (including horses) are allocated a set of registered identifiers including a PIC. The PIC indicates who owns the stock and where they are kept, even if the owner does not own the land. Equestrian NSW

⁹ Rural and Regional Affairs and Transport References Committee (2019), 'Feasibility of a National Horse Traceability Register for all Horses', 4-5.

requires owners to identify the PIC at which their horse is kept when entering competitions.

The Australian Horse Industry Council observed that compliance with PIC requirements is unknown, as is the accuracy of annual reporting. For NSW, the DPI acknowledged variable compliance with PIC requirements across the state, with people outside of prime production areas not necessarily aware of the requirement to have a PIC, and in general terms, property owners have a PIC for other livestock, not just horses.

Given these issues, PICs alone will not provide sufficient information for effectively tracing horses. Instead, PICs could be used in conjunction with individual identification (microchips) and a central database. The RSPCA does not support a PIC-only solution to horse traceability as it will not address the key requirements to meet biosecurity needs nor will it address animal welfare and accountability issues.

4.4 Support and education for horse owners

It is imperative with any new system that an adequate phase-in period and appropriate education materials including an awareness campaign be developed to ensure effective uptake of the system. As the National Livestock Identification System (NLIS) has already been rolled out for farm animals, this could be utilised as a model for roll out of education for a horse traceability system. Any learnings from the rollout of the NLIS could be improved upon here.

Ensuring that horse organisations are fully informed and are able to share information with their members will be vital for an effective rollout. This is especially important in such a decentralised industry.

Funding would need to be provided to ensure that communications effectively reach key audiences including horse owners who have no affiliation with any horse organisations. It may be useful to promote information through feed and equipment stores to help facilitate this.

4.5 Compliance and auditing

To enable effective compliance, mandatory requirements must be regulated under appropriate legislation, particularly for microchipping, location and movement. Given that the legislative framework is already in place at a state and territory level for identification and movement of farm animals, there is potential for horses to be included. For example, in Victoria, the identification and movement of livestock are covered in the Livestock Disease Control Regulations 2017, which are made under the *Livestock Disease Control Act 1994* and these regulations could be amended to require microchipping of horses. Similar changes could be made in other jurisdictions. A transition period could be agreed for owners to comply with the new legislation.

Any central database that is developed to hold microchip and any other relevant data (i.e., PICs) will need to allow access to authorised officers responsible for enforcing legislation relating to horses.

The system itself should also be able to automatically flag data such as where one microchip number is used for more than one horse (i.e., duplicate entries), discrepancies in status, etc.

Persons in charge of horses must be required to update the central database where ownership is transferred or where a horse status changes, i.e., the horse is slaughtered or deceased. This would include abattoirs and knackereries. This is imperative to understand the number of horses currently in Australia, but also the outcomes for horses as this data could assist with making welfare improvements across the system.

4.6 Sustained funding

It is estimated that the United Kingdom's Central Equine Database cost between 1 and 3 million pounds. While this provides a very rough estimate, it would be difficult to ascertain the costs of the recommended system without additional investigation. What is possible, however, is to understand the return on investment of traceability systems.

According to information tendered to the 2019 Federal Inquiry into the feasibility of a national horse traceability system by the operators of the NLIS, Integrity Systems and Meat & Livestock Australia (MLA),¹⁰ \$65 million was invested over the 12 years between 2006 and 2017 with an annual operating cost of \$5.4 million. According to an impact assessment undertaken in 2019, by having the NLIS in place and therefore avoiding disease costs and attracting export market premiums, it generated an economic benefit of \$316.7 million over the period 2015-2020.

In comparison, the economic impact of disease outbreaks on the equine sector is enormous due to potential disruption to industry workers, participants, regulators, promoters and affiliated businesses. According to a 2019 report by AgriFutures Australia, "the thoroughbred breeding industry in Australia generates more than \$1.16 billion in value added impacts to the national economy." Harness racing is worth "approximately \$145 million per year to the Australian economy".¹¹ In addition, during the Senate inquiry, Equestrian NSW stated that "the equestrian non-thoroughbred industry contributed approximately \$1.3 billion to the NSW economy each year".¹²

Given that biosecurity is considered by government to be the core function for a horse traceability system, Commonwealth government funding should be provided for the initial set up of the register.

Providing a base level of the register free of charge would encourage owners to upload data and also enable potential purchasers to verify ownership of horses. From this base level, enhanced features could be provided on a scaled user-pays basis.

It is noted that sustained funding will be required to ensure compliance, education, support and updates. Funding for this component could be shared between the Commonwealth, state governments and industry. The formation of the EADRA agreement during the 2007 Equine Influenza outbreak provides a good example for future co-funding arrangements.

Once the system is live, a user-pays model where base level data is available for free, but access to additional features which incurs a cost would provide some cost-recovery opportunities. Most importantly the NLIS experience has shown that funding must be sustained at a level to support compliance, education and system improvements.

4.7 Ability to add new functionalities

A NHTS should also include the ability to build in additional value-added functionality in the future such as health and behaviour information. For example, it would be very useful to include vaccination details, particularly for zoonotic diseases such as Hendra virus.

4.8 Benefits of proposed NHTS model

The potential benefits of this model are:

¹⁰ Rural and Regional Affairs and Transport References Committee (2019), 'Feasibility of a National Horse Traceability Register for all Horses', 18.

¹¹ Rural and Regional Affairs and Transport References Committee (2019), 'Feasibility of a National Horse Traceability Register for all Horses', 89.

¹² Rural and Regional Affairs and Transport References Committee (2019), 'Feasibility of a National Horse Traceability Register for all Horses', 78.

- Effective biosecurity management and alert system for horse owners/carers - this will deliver better animal welfare outcomes.
- Improved natural disaster emergency response with an enhanced ability to return horses to their owners/carers - this will deliver better animal welfare outcomes.
- Improved horse welfare by:
 - ensuring accountability of owners and identifying owners in cases of cruelty, neglect, abandonment and hoarding; at present, denial of ownership is a barrier to compliance and intervention.
 - identification of welfare trends to guide development of education materials to boost welfare outcomes.
- Traceability of horses leaving registered participants in the racing industries to owners outside racing, subsequent changes in ownership and end-of-life decisions.
- Efficient communication to horse owners on animal health and welfare and responsible ownership matters.
- Transparency on the number and origin of horses received and slaughtered at knackeries and abattoirs.
- Improving the perception of the horse racing industry and maintaining its social licence through greater transparency about post-racing outcomes.
- Assisting in criminal investigations in relation to horse theft.
- Improved rider safety through increased transparency of a horse's history.

This model is achievable in Australia and should include a transition period to allow horse owners to arrange microchipping of their horse(s).

In recent years, the United Kingdom has developed an equine register which may provide a good framework for the development of a similar registry in Australia. For more information, see the [Equine Register website](#) and [The Equine Identification \(England\) Regulations 2018](#).

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