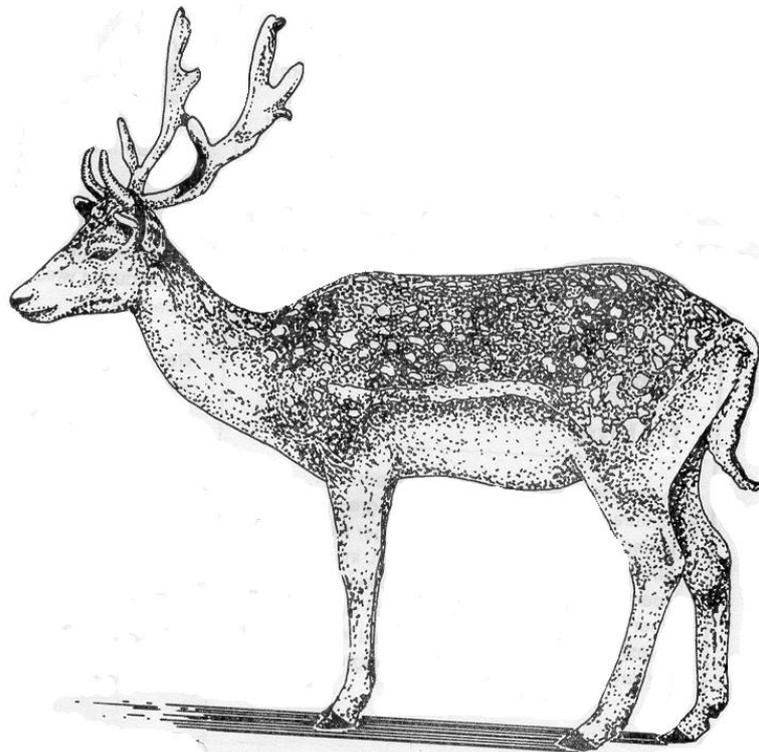




Government
of South Australia

Policy on Feral Deer in South Australia

Adopted by the Minister for Environment and
Conservation



Fallow deer

POLICY RELATING TO FERAL DEER

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1. TERMS AND DEFINITIONS

Farmed Deer: All deer (Family: Cervidae) currently legally held in Australia, kept for commercial or non-commercial use that are on land with the consent of the owner and that are permanently identified and/or confined behind deer fencing in compliance with the *Natural Resource Management Regulations 2005*.

1.2 Feral Deer: All deer (Family: Cervidae) that lack identification, are not confined by fencing which is adequate to confine deer, are on land without the consent of the owner and do not belong to a registered herd under the *Livestock Regulations 1998*.

2. POLICY OBJECTIVES

2.1 Primary producers, the environment and the public protected from damage and hazards caused by feral deer;

2.2 The cost to the domestic deer industry of implementing the above objective will be minimized.

3. IMPLEMENTATION

3.1 Control of feral deer

Landholders are responsible for the satisfactory control of the numbers of feral deer on their properties. NRM boards will require landholders to eradicate new populations of feral deer that have established as the result of recent escapes or recent migrations. The control of established feral herds on private and public lands is the responsibility of landholder. Local animal plant control boards in accordance with their board area plans will determine the level of control that will manage the impact of feral deer within their board areas to a level that is acceptable to the community.

3.2 Reduction of the number of released or escaped domestic deer

It is an offence to wilfully or negligently release deer into the wild. This will reduce the risk of domestic deer being released or escaping and;

- establishing new feral deer colonies or augmenting existing colonies or
- damaging land, crops, vegetation or causing other losses.

In environmentally sensitive areas: in particular on **offshore islands** the keeping of domestic deer is prohibited unless a permit issued under section 188 of the Natural Resources Management Act 2004.

In other areas:

- Deer must not be deliberately released unless it is inside an area with appropriate fencing to confine the animals. It is an offence under the *Natural Resource Management Act 2004* to allow deer to escape from an area where they are confined in accordance with the regulations (this only applies where the release is due to a wilful or negligent act).
- Feral Deer, which are not adequately confined or identified, must be controlled in accordance with 3.1 above.

Regional Natural Resource Management Boards may:

- impose conditions on deer owners who, after sufficient warning, do not have adequate fencing and allow domestic deer which are run in commercial or non-commercial herds with the consent of the owner, to stray, eg requiring fences to be upgraded to a standard that will ensure deer do not escape.
- recover from the deer owner the cost of recapturing or destroying released or escaped domestic deer, when deer farmer has done nothing to prevent these escapes and it can be demonstrated that the release is the result of a deliberate or negligent act.

4. BACKGROUND

4.1 Introduction

4.1.1 Distribution and Abundance

Fallow deer

Feral deer (Family: Cervidae) are known to exist in various parts of South Australia. Although, at the time of adoption of this policy, fallow deer (*Dama dama*) is the only feral species known to be in any number in South Australia. The current small populations of feral fallow deer in South Australia established through wide liberations throughout the State in the late 1800's but which have now retreated to small pockets in parts of the South East, Mid North and Mt Lofty Ranges. They have survived in natural vegetation and forest edges where there is access to adjoining agricultural land. Both the distribution and abundance of feral fallow deer have been limited in the past due to a range of factors including lack of suitable habitat and the activities of recreational hunters. There has been no scientific research carried out into the biology of feral fallow deer in South Australia. The single largest source of knowledge about the distribution, abundance and habits of feral fallow deer in South Australia are recreational hunting groups such as the Australian Deer Association.

Other species of deer

Small herds of red (*Cervus elaphus*), rusa (*Cervus timorensis*) and sambar (*Cervus unicolor*) deer have been reported in the Southeast in recent years. Small herds of red deer also exist in the area around the Bundaleer Forest in the Mid-North. Sightings of rusa and sambar deer are certainly the result of accidental or deliberate liberations in recent years as these species are kept in very limited numbers in commercial herds (there is only one commercial herd of Sambar) and there is no record (Bentley, A. 1978) of them ever properly establishing in the wild in South Australia. In the South East small populations of rusa, red and sambar deer are confined in an area from Salt Creek to Kingston.

Whilst feral red deer were once established widely in South Australia they appear to have become extinct until recently where small numbers have been seen most probably as the result of escapes from commercial deer farms. Red deer have generally not flourished in Australia, despite many release events. The only major population is in the watersheds of the Brisbane and Mary Rivers in Queensland. Other small populations occur in Victoria but these appear to have not extended either their distribution or abundance for some years.

Hog deer are currently held in a commercial herd in South Australia. A single wild hog deer was shot on the Narrung Peninsula a few years ago but Biosecurity SA is not aware of any other reports of this species occurring in the wild in South Australia. Feral hog deer have established as isolated groups along the southeastern coast of Victoria. There is similar coastal habitat along the southeastern coast of South Australia with some large conservation areas where this species could establish.

A majority of the Asiatic species of deer in South Australia are held in a commercial deer herd on one property in the South East. Other species, such as wapiti (sub-species of red deer), chital and hog deer are also being kept in domestic deer herds.

Trends in distribution and abundance

In the last 5-10 years, local Natural Resources Management Boards have raised concern that feral deer distribution and abundance may have increased in the last few years. Possible reasons are:

- **increasing areas of agro-forestry plantations, particularly in the South East, increasing the total area of favourable habitat for fallow deer.**

Plantations may be used as corridors by deer to move from one area of suitable habitat to another and may be used as areas to camp adjacent to pastures and crops. Other species of deer such as rusa and sambar, if they were to establish are more inclined to browse and are known to use open forest.

The significance of these corridors in terms of increasing distribution and abundance of fallow deer is unknown at this stage but wherever possible forestry companies should be engaged in deer control programs to ensure new populations do not establish in new forestry plantations.

- **decreased recreational hunting effort against feral deer in recent years due to limited access to private and public lands, increased costs and lack of suitable trophy animals.**

Whilst the interest in recreational hunting of deer still appears high, opportunities are low because many landholders are not willing to let hunters onto to their land because of issues relating to public liability. However, there are opportunities for managed hunting programs for feral fallow deer in cooperation with private both public and private landholders. These programs are well planned and managed under the control of groups such as the Australian Deer Association (ADA) and Sporting Shooters Association of SA, Hunting Conservation Branch. In South Australia feral fallow deer numbers appear to have been kept at low numbers with the assistance of managed recreational hunting programs (e.g. ADA's quality deer management program). The best source of information regarding the current distribution and abundance of feral fallow deer lies with ADA. The ADA have been involved in sustained deer management on private properties for many years, particularly in the South East and have been able collect consideration information, knowledge and skill in the management of this species.

- **increasing numbers of domestic deer being kept therefore increasing the risk of accidental/deliberate releases into the wild.**

There have been some anecdotal reports to Biosecurity SA from landholders and local Natural Resources Management Board s during recent years of new populations of feral deer. Unfortunately there is very little information available from these reports eg species, number released, success and the source.

New populations of feral fallow deer

There have been a number of reports that a fallow deer herd in the 'Taratap' area of the Upper South East has expanded its range in recent years into the southern end of the Coorong around Salt Creek. However, significant further expansion of the fallow herd's range is unlikely given lack of suitable habitat to the north and west and the herd is subject to the ADA hunting program in conjunction with landholders. There is some concern that there is an expansion of fallow deer further east due to an increase in forestry plantations (see above). Generally, reports of new populations of fallow deer are not the result of long established fallow deer herds expanding their distribution. It is most likely these reports of new populations from other areas have arisen from 'ad hoc' translocations by hunters or liberations from farm escapes. A fall in the value in recent years of fallow deer in commercial herds may have contributed to these liberations. New herds of fallow deer at Burra, Southern Fleurieu Peninsula and Kangaroo Island have been reported to Biosecurity SA recently by local Natural Resources Management Board s. Some of these small newly established herds of feral fallow deer have already been eradicated by farmers or by recreational hunting groups offering a service to private landholders (eg Murray Bridge, Burra, Keith, Currency Creek- *source: local authorised officers*).

Other species

Reports have been received from the Upper South East of feral rusa and sambar deer (see threat below). As these species have not been established in the wild in South Australia previously they are almost certainly the result of recent liberations.

Sambar, a native of South East Asia, have a broadly similar bio-climatic range to parts of the South East of South Australia and have already widely established in the Gippsland region of Victoria and have penetrated into NSW and ACT. Sambar deer in Victoria and NSW are largely confined to more remote forested mountain areas and are rarely seen by the general public or farmers. However they are now probably the most abundant of the feral deer species in South Eastern Australia.

Rusa are a truly tropical species and their ability to establish feral populations in South Australia is more uncertain. However, they have established in a National Park close to Sydney and do well in commercial herds around Australia. Whilst they might not flourish in the wild in SA, there is some potential for this and other Asiatic species to establish. However reports to date of sambar and rusa deer in the wild have been restricted to small populations and there appears to be only local herds that have established around the Gum Lagoon area at this stage.

4.2 Threat to the agriculture, environment and public safety

4.2.1 General

Damage caused by deer has been reported from various parts of the world, both in areas where they occur naturally and in places where they have been introduced.

However, there have been no detailed scientific studies on the effects of deer in South Australia and any such study would be long-term and costly. Despite a lack of hard evidence on the effect of feral deer, particularly environmental effects, they should be treated with some caution. As with other feral herbivores such as goats, deer should be regarded as animals with the potential to cause damage to areas of agricultural production and native vegetation. However care should be taken wherever possible to determine the real extent of the problem feral deer are causing before developing management strategies.

Many deer products are useful, and domestic deer have an important and expanding place in Australian livestock production. However it is also recognised that domestic deer have demonstrated the capacity to escape readily; to survive and breed in the wild as true feral animals. Feral deer, as with other feral animals pose a greater potential to cause damage than domestic livestock because of their uncontrolled grazing. Fences do not confine them, and therefore only reducing their numbers can control their grazing pressure, not by other means of grazing management.

The Department of Environment and Natural Resources, South Australian Water and Forestry SA oppose the release of deer into lands under their control because of potential damage to native vegetation and secondary impacts from illegal hunting of feral deer.

Feral deer in Australia have not comprised the major part of the total grazing pressure over large areas for extended periods. This is most likely due to efforts at control undertaken by landholders and recreational hunters, not to a lack of the deer's reproductive capacity to attain higher population densities. Should the control efforts be relaxed for any reason or releases of more deer are permitted, the resultant increase in feral deer numbers could cause increased agricultural and environmental damage. However managed recreational hunting, in cooperation with private landholders in the South East has been able to maintain fallow deer numbers at levels where agricultural and environmental damage is minimal. At the same time this program has been able to provide ongoing incentive for sustained control effort over many years. This type of arrangement between hunters and property owners has been formalised in Tasmania using property based game management plans under the guidance of the Tasmanian Parks and Wildlife Service Game Management Unit (Hall, G. 1998).

Feral deer can also be a hazard to public safety because of their uncontrolled movement across public roads. A small number of motor vehicle accidents as result of collisions with deer have been recorded in recent years. This must, however be put into perspective in comparison with collision involving other wandering livestock and native animals such as kangaroos and wombats. Whilst the damage resulting from of a collision is a very serious concern, the likelihood of an incident, given current deer numbers must be considered as low (see 5.4, para. 4).

4.2.2 Fallow deer

Recent reports of damage and complaints about feral fallow deer have been received from landholders in the South East Region, Southern Mt Lofty Ranges and Burra districts. These reports include minor damage to agricultural crops, native vegetation, planted trees and traffic hazards.

Fallow deer tend to favour margins between agricultural land and areas of vegetation. Whilst fallow deer do occur in conservation areas within the State, most fallow deer are confined to private land where they have access to favourable habitat on the interface between native vegetation and cleared agricultural land. Whilst there are examples of minor damage to native vegetation caused by fallow deer that have been reported to Biosecurity SA, the true impact of fallow deer on biodiversity in South Australia is unknown. However, given that the distribution of fallow deer is largely restricted to private agricultural land and their abundance has remained fairly stable, the chance of significant impact from fallow deer in conservation areas is likely to be low.

Unlawful hunting and/or unsafe hunting practices through uncontrolled recreational hunting of fallow deer is a concern for landholders. Conversely, managed recreational hunting by responsible groups with agreement from private landholders has the ability to deter illegal hunting (Hall, G. 1999). Many landholders in the South East have willingly entered into agreements to allow recreational hunting on their properties, particularly when under the control of the ADA.

NOTE: This policy and the NRM Act does not seek to address the issue of hunting feral deer apart from its application as a management strategy. The use of firearms for hunting purposes is addressed the under *Firearms Act 1977* and under Hunting provisions in the *National Parks and Wildlife Act 1972*.

4.2.3 Other species of deer

If species other than fallow deer, particularly those of Asiatic origin (see below), were to establish widely distributed feral herds, the potential threat to biodiversity in conservation areas could be increased. The potential threat from each species of feral deer should be considered separately, given they have different biology, habitat requirements and grazing habits.

Red deer are predominantly grazers and similar to fallow deer are likely to remain in fringe areas adjacent to agricultural land. Red deer are known to cause damage to crops and pastures in the region where they have established in Queensland when abundant, but damage is currently being kept to low levels through managed hunting programs. Given the biology of red deer and its grazing habits there exists some potential for damage to crops and pastures. The environmental impact of this species is unknown, but given they favour similar habitat to fallow deer, the potential threat to conservation areas must also be considered as low.

Of the species, which occur in South Australia, there should be greatest concern about the potential establishment and threat from feral herds of sambar, rusa and hog deer. Of these Asiatic species, sambar and rusa have greater preference to browse than fallow deer, favour open woodlands or open forest and therefore have greater potential to cause damage in conservation areas. Hog deer are primarily a grazer of native grasses, sedges and improved pastures but browsing contributes to its diet and favour coastal heath and shrublands. The potential impact of hog deer is unknown, but if this species established in coastal areas there could be increased levels of grazing pressure on fragile coastal habitats.

4.3 Feral deer and animal diseases

Feral deer must be regarded, as being a potential problem either in the event of an exotic disease outbreak or if tuberculosis became re-established.

The ability of deer to contract, and be a source of infection for, bovine tuberculosis is well recognised although it has never been isolated in feral deer in South Australia. When densities of feral deer are low the ability to carry and transmit endemic diseases is significantly reduced. However if the density of feral deer was allowed to increase then the risk of endemic disease may also increase.

The degree of risk posed by feral deer in relation to a range of exotic diseases is difficult to establish. However, should a serious disease not presently in Australia become established here, the presence of any feral animals such as deer could present a problem. This would be due to the importance of eradicating the disease from domestic herds and demonstrating that the risk of it occurring in wild animal is negligible. This would be critical in having Australia declared free of that disease for a resumption of international trade to occur. This declaration may be compromised if any feral animals, which are known to be difficult to eradicate, are perceived to be infected.

Clearly it is desirable to eliminate new populations and to remove or reduce the number of established feral deer populations in a timely and economical manner to reduce the risk of these animals providing a potential reservoir of disease. However care should be taken to properly assess the level of disease risk when undertaking control programs to meet this objective.

4.4 Potential of deer to become feral

Domestic deer, which are released from captivity, have demonstrated a capacity to survive in the wild in South Australia and establish feral herds. The number of domestic deer being kept in South Australia has increased slowly but steadily since commercial farming commenced despite the fact that the value of some commercial species has fallen dramatically in recent years. This has possibly resulted in more accidental escapees and/or deliberate releases from a minority of properties where there is inadequate fencing to confine animals, poor management and low economic value of the stock. This is not an industry wide problem and the SA Branch of the Deer Industry Association of Australia is taking a strong stand in encouraging good husbandry practices across all producers, including a good standard of deer-proof fencing so that animals cannot escape under normal circumstances. A strong commitment from the industry to good husbandry practices plus introduction of provisions for keeping commercial deer under the *Natural Resource Management Regulations 2005* will hopefully reduce the incidence of escapes from commercial deer herds in the future.

Biosecurity SA has also received a number of anecdotal reports in recent years of deer being liberated by recreational hunters with the objective of establishing new populations or to seed areas to supplement current numbers or improve the trophy value of animals. Whilst none of these reports can be directly validated in South Australia this practice is well known in Australia and has been well documented in New Zealand (Fraser, K. W. et al., 1996). The success of these deliberate releases in establishing new herds is unknown to Biosecurity SA.

The trend of deer being released and the establishment of new feral populations may continue unless adequate control of domestic deer is instigated and landholders (both private and public) are compelled to eliminate new populations of feral deer. Secondly, unless both recreational hunters and farmers are made aware and accept the potential economic and environmental costs species, the liberation of deer into the wild is likely to continue.

5. EXPLANATION AND COMMENTS

5.1 Implementation of obligation to control feral deer

5.1.1 Farmed deer

Proper management of domestic deer herds can ensure that animals do not escape and in the case of inadvertent or accidental escapes that domestic deer are eliminated or recovered before establishing feral populations. However conflicts arise concerning the extent of the resources the respective interested parties should employ to minimise or resolve the problems. On the deer producer's side, the major issues are the standard of fencing to be used and the steps to be taken to recover escapees. Clearly if deer owners lessen their efforts a greater burden will be imposed on other landholders (See 5.4).

5.2.2 Feral deer

For landholders (both government and private) with feral deer on their properties, the major issue is to what level they should reduce feral deer numbers in order to minimise environmental damage and other hazards, but the landholders also have a responsibility to one another because feral deer ignore property boundaries.

Other interested parties such as nature conservation bodies, animal health authorities and domestic deer industry bodies believe feral deer should be eradicated or at least kept to a level where their impact is acceptable. Conservationists (among others) maintain that feral deer cause or contribute to overgrazing and are unacceptable in areas dedicated to conserve native flora and fauna. Animal health authorities regard any feral animal as a potential impediment to exotic disease control. Hunters on the other hand would like deer to remain or be increased to higher densities to improve hunting success.

The use of controlled or managed recreational hunting can provide the opportunity to find some middle ground where hunters, landholders and the community can benefit. This may apply to species such as fallow deer which are already widespread and where the level of damage can be managed to a low level. Conversely, different strategies may be required where there is a higher level of threat (eg in a high value conservation area) or where a species has not yet established. Some of the more prominent recreational hunting groups are taking a significant interest in conservation issues and some have assisted (eg Sporting Shooters Association of Australia SA Branch) both government agencies and private landholders in the eradication of new populations of pest animals which pose a significant threat on both private and public lands (SE Branch of ADA have also participated in joint feral deer control programs with the Department for Environment and Natural Resources and private landholders).

Landholders must control the number of feral deer on their property at an acceptable level, which is determined by the regional NRM Board after consultation with the landholder and other interested parties. Satisfactory levels of control may be achieved through the development of property action plans. These plans, which are developed for other pests, can be formulated between a regional NRM board and a single or group of landholders working in cooperation to reduce deer density to a level where the following benefits are obtained:

- Short-term benefit is increased production from domestic livestock due to reduced competition between them and feral deer for food and possibly water.
- Long-term benefit is increased production and land value due to reduced land degradation.
- Other benefits to the landholder include a reduction in the potential threat of losses and costs attributed to the outbreak of an endemic or exotic disease. The level of control must be sufficient to reduce to low levels the adverse effects of deer migrating from one property to neighbouring properties.
- If a landholder fails to control feral deer adequately on his property, the NRM Board may institute a notice requiring a landholder to prepare an action plan to control deer.

5.2 Local community involvement

Local community driven management of deer control is integral to this policy, and Regional NRM Boards interpret and implement this deer control policy according to their own circumstances. The local community can determine its policy through their regional NRM board. Biosecurity SA will help Boards develop their policies by providing technical and other support in the development of their regional NRM Plans.

5.3 Prohibition of deer from certain areas

Under Section 176 of the *Natural Resource Management Act 2004*, the keeping of farmed deer is prohibited in the following areas:

Offshore islands. Six species of deer are declared for offshore islands (Class 16 and 22) and their introduction to and keeping on these islands is prohibited without a permit issued by a Natural Resources Management Board .

5.4 Prescribed Measures for Control - Security and Identification Requirements

People keeping or farming deer must keep them inside deer-proof fences. There are no special fencing requirements for other domestic livestock, apart from goats and emus, but the prevalence of feral deer compared with other feral ruminants (except feral goats) is clear evidence that deer escape readily if fencing is not up to deer-proof standard.

Regulation 26(2) under the *Natural Resources Management (General) Regulations 2005* states:

A deer on land owned or occupied by the owner of the deer, or on land with the consent of the owner or occupier of the land, must be—

- (a) secured or confined; and
- (b) permanently identified,

in a manner determined by the Chief Officer.

The essence of a deer fence is that it should be in keeping with what the deer industry considers to be 'best practice' for boundary fencing and is deer-proof. Biosecurity SA has consulted industry about deer fencing through the Deer Industry Association of Australia Ltd (SA Branch) and the Deer Advisory Group set up the *Livestock Act 1997*. Biosecurity SA in consultation with the deer industry recommends that a minimum standard for boundary fences must be in accordance with the **Australian Deer Industry Manual, Number 2, *Fencing and Handling Yards*, RIRDC Report 98/13 (or as amended)**.

The Chief Officer's determination under Regulation 26(2) of the *Natural Resources Management (General) Regulations 2005* is listed separately to this policy.

Under Section 254 (Division 1 – Powers to make orders) of the *Local Government Act*, local councils have the power to make orders to require an owner or occupier to fence land to prevent the escape of animals in a situation which exists that animals may cause a hazard to road users. This provision within the *Local Government Act* could be used to require straying deer to be adequately fenced where there is a traffic hazard.

Deer must also carry a clearly visible ear tag with minimum dimension of 6cms x 5 cm to ensure they are considered to be 'farmed deer' under these regulations (see section 5.7).

5.6 Recovery of escapees

In recent years, deer have escaped from deer farms with inadequate fencing and colonised in areas of native vegetation. The *Natural Resource Management Act 2004* provides for a penalty over and above the possible loss of the deer to be imposed on deer farmers who allow deer to stray because of willful or negligent acts. In addition, the cost of recapturing or destroying escaped domestic deer may be recoverable from the owner of the deer by an NRM Board that have been released as a willful or negligent act.

5.7 Protection of escaped farm deer

Under the *Natural Resource Management Regulations 2005* deer must carry a clearly visible ear tag with minimum dimension of 6cms x 5 cm to ensure they are considered to be 'farmed deer' under these regulations.

Under these changes it is the responsibility of the deer farmer to notify adjacent landholders when farmed deer escape. Landholders, who have been notified by a deer farmer that deer have escaped, cannot take action to capture or destroy escaped farmed deer carrying a visible ear tag on their properties for a period of 48 hours after they receive notification. The intent of this regulation is to give deer farmers 48 hours to recover escaped 'farmed deer' by negotiation with the landholder on whose property they are roaming. However, if the deer farmer cannot capture the deer within 48 hours after making notification, a landholder can then take action to destroy the deer. However, immediate action can be taken by a landholder to capture or destroy deer when they are not carrying a visible tag. Immediate action can also be taken when deer carry a tag but a deer farmer has failed to notify a landholder of the escape of farmed deer.

Hon Paul Caica MP Minister for Environment and Conservation Date: 21 st December 2010
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