Department of Planning, Housing and Infrastructure

dphi.nsw.gov.au

Regulatory Impact statement

Border Fence Maintenance Regulation 2025

June 2025

Acknowledgement of Country

The Department of Planning, Housing and Infrastructure acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land, and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

Published by NSW Department of Planning, Housing and Infrastructure

dphi.nsw.gov.au

Regulatory Impact statement

First published: June 2025

Department reference number: DOC25/100947

DPHI-MC-R-SC-V1.0

Contents

Summary

The Border Fence Maintenance Regulation 2018 (BFM Regulation) is due for repeal on 1 September 2025. Remaking the BFM Regulation requires a Regulatory Impact Statement (RIS) and public consultation.

The BFM Regulation supports the *Border Fence Maintenance Act 1921* (BFM Act). The BFM Act provides for the upgrade and maintenance of the 600-kilometre wild dog border fence along parts of the South Australian and Queensland borders of New South Wales (NSW).

The border fence is of significant economic importance to the western division of NSW, given the impact of wild dogs on farming businesses through the loss of stock. The aim of the border fence is to keep dingoes and wild dogs out of the sheep, goat and cattle grazing country of the western division of NSW.

The RIS assesses 2 options:

- Repeal option: allow the BFM Regulation to lapse (base case)
- Remake option: remake the BFM Regulation without amendment.

Remaking the BFM Regulation without amendment (remake option) is the preferred option.

Currently, all landholders in the western division of NSW with landholdings greater than 1,000 hectares contribute to the cost of the border fence at a rate of 7 cents per hectare. The funds raised are used by the Border Fence Maintenance Board (the Board) to upgrade and maintain the border fence.

The remake option maintains this contribution, capped at the current 7 cents/ha rate. This option does allow for minor administrative amendments to be made to improve language and remove repetition in the BFM Regulation. The purpose of the BFM Regulation will not be impacted by these changes.

The base case option, allowing the BFM Regulation 2018 to lapse is considered unviable as it would remove provisions for maintaining the border fence with the result that the border fence falls into disrepair over time.

About this regulatory impact statement (RIS)

Why the BFM Regulation is being remade

Under the *Subordinate Legislation Act 1989* (the SL Act), the Government must review and remake most regulations every 5 years. A regulation that is due for staged repeal may be:

- allowed to lapse
- maintained and the staged repeal process postponed
- remade without amendments
- remade with amendments.

It is proposed that the BFM Regulation be remade without amendment by 1 September 2025.

Public consultation

How to make a submission

Organisations and individuals are invited to provide feedback on the proposed BFM Regulation and RIS by:

- completing the online survey on the Crown Lands website: https://www.crownland.nsw.gov.au/border-fence-maintenance-regulation-remake
- emailing your submission to cl.enquiries@crownland.nsw.gov.au
- posting your submission to:

  Border Fence Maintenance Regulation Submissions

  Department of Planning Housing and Infrastructure

  Crown Lands

  PO Box 2185

  Dangar NSW 2430

Submissions close Monday, 7 July 2025 at 11.59pm.

The case for maintaining the border fence

The problem

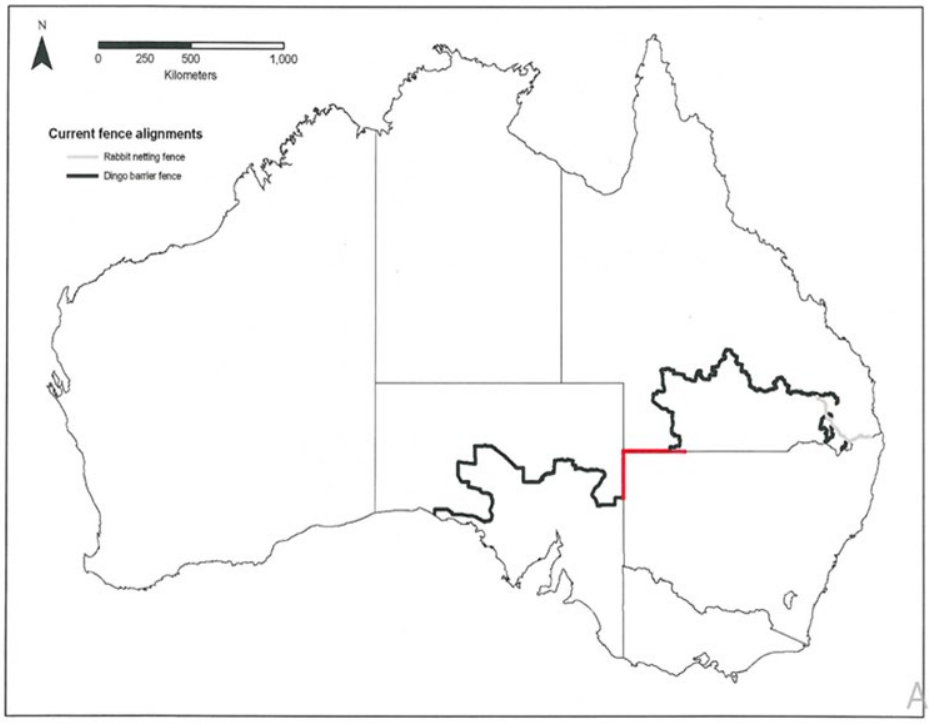
Wild dogs inhabit many parts of Australia and cause significant damage to livestock industries via predation and injury. A coordinated effort by all stakeholders is required for their effective control.

The border fence provides a cost-effective way to minimise the impact of wild dogs on property and livestock. Without this effort, it is more likely that there will be underinvestment in wild dog control. This would have flow-on impacts on the rural economy and communities in the western division of NSW.

About the border fence

The border fence is a 600-kilometre dog proof fence constructed along the NSW, Queensland and South Australian borders. The border fence forms part of a wider wild dog fence network that is 5,400 kilometres long and extends from the Great Australian Bight in South Australia, passing through Cameron Corner and finishing in the Darling Downs region of Queensland. The NSW Government manages the 600 kilometres of the border fence that runs along the borders of NSW, Queensland and South Australia.

Figure 1 The current extent of wild dog and rabbit barrier fencing in NSW, SA and Queensland. The NSW-managed portion is shown in red



(Source: Border Fence Maintenance Board, 2021).

The border fence must be strong enough to withstand significant pressure as wild dogs often try to get under or through the fence. Wild dogs are known to chew the border fence wire to attempt to enter grazing land on the southern side of the border fence, so frequent fence-checking and repairs are necessary. In addition, natural weather events such as flooding and sand movement place extra maintenance pressure on the border fence.

The Board is responsible for the upgrade and maintenance of the border fence. The Board is required to establish a fund, collect rates from landholders and use the funds to maintain the border fence. The Board sets the annual rate (up to the maximum rate prescribed in the BFM Regulation), taking into account the annual cost of maintaining the border fence, less any contribution from the NSW Government.

The Board has a Chairperson from the Department of Planning, Housing and Infrastructure appointed by the Minister for Lands and Property, and 5 other members including 3 representatives from Local Land Services, 1 from the Pastoralists' Association of the West Darling and 1 from the NSW Farmers Association Western Division Council.

Objectives of the BFM Act and BFM Regulation

The NSW Government's aim is to effectively control wild dogs in the western division of NSW by maintaining the border fence.

The BFM Act is the law that allows the dog-proof fence to be built and looked after in western NSW. It also establishes the Board, who are responsible for constructing and maintaining the border fence.

Section 12 of the BFM Act sets a minimum charge of 1 cent per hectare and allows the Board to choose any rate between this minimum and the highest rate allowed under the BFM Regulation. The Board charges the fee on all land in the western division of NSW that is larger than 1,000 hectares.

The aim of the BFM Regulation is to provide the maximum annual rate that the Board can charge ratepayers so that the border fence can be maintained to an appropriate standard. Currently the maximum annual rate is set at 7 cents per hectare.

The BFM Regulation also sets out:

- the interest charged on overdue rates – which is the same as under section 101 of the *Civil Procedure Act 2005*
- the way rate notices are issued.

Options analysis

The options

2 options have been considered for analysis:

- Repeal option: allow the Regulation to lapse (base case)
- Remake option: remake the Regulation without amendment

Repeal option (base case)

Under the repeal option, the BFM Regulation will lapse on 1 September 2025.

In this scenario, the rate landholders are charged would revert to the minimum rate of 1 cent per hectare under Section 12(1A) of the BFM Act. The repeal option is the base case for the cost-benefit analysis in this section of the RIS.

The Board receives most of its revenue from ratepaying landholders, some government funding and a small proportion from interest. Without the full contribution from ratepaying landholders, the Board would be unable to provide effective, ongoing management and maintenance of the border fence.

The current maintenance program has a team of 11 people who ensure the length of the border fence is patrolled twice per week to monitor and maintain its dog proof condition. Under the repeal option, it is expected funds would be insufficient to provide regular monitoring. Within weeks, an unmonitored border fence would likely become compromised as a result of weather events, erosion or unattended repairs, allowing wild dogs to come under, over or through the fence.

Remake option

Under this option the BFM Regulation would be remade without any substantial changes.

The Board would continue to charge relevant landholders a levy of up to 7 cents per hectare (for landholdings over 1,000 ha) and use those funds to maintain and strengthen the border fence as a defence against wild dog attacks.

Assessment of impacts

Costs and benefits

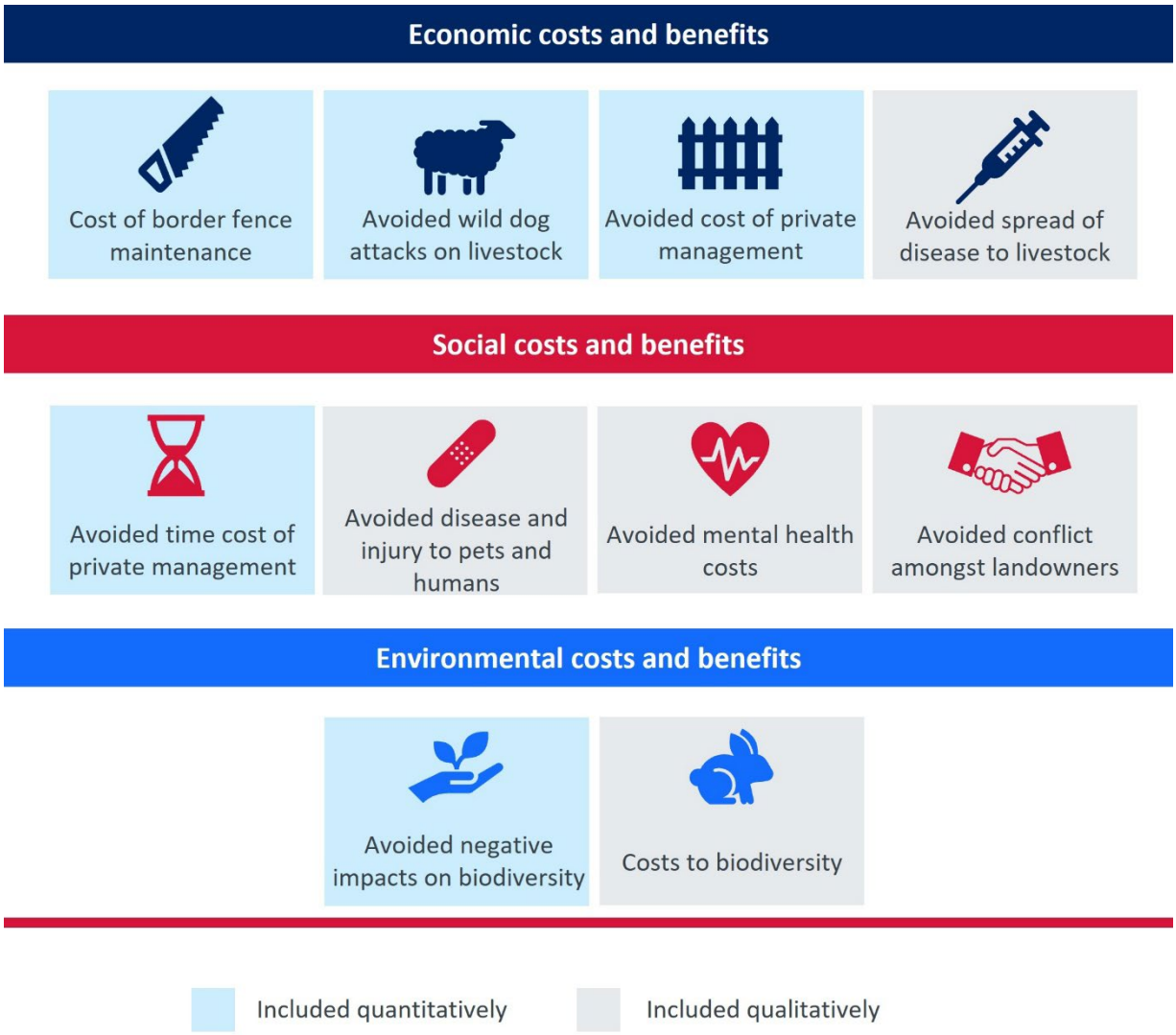
The impacts for each option have been assessed to identify economic, social and environmental costs and benefits.

Figure 2 outlines the costs and benefits for the remake option compared to the repeal option.

Some costs and benefits could be given a dollar value, these are referred to as the quantitative costs and benefits (shown in blue in Figure 2). Others could not be measured with numbers so a written explanation is used to help us understand if they might affect the final result, these are referred to as the qualitative costs and benefits (shown in grey in Figure 2).

Appendix A outlines further detail on cost-benefit analysis approach.

Figure 2 shows the costs and benefits of the remake option compared to the repeal option. It includes both quantitative and qualitative impacts.



Quantitative results

The cost-benefit analysis shows that the remake option would deliver significant value to the community.

The value of remaking the BFM Regulation has been calculated relative to the base case, based on. additional costs and benefits that would not exist under the repeal option.

Compared to the repeal option, the remake option delivers around $143.93 million in benefits to the community, as shown in Table 1.

Table 1: Estimates of the incremental costs and benefits of remaking the BFM Regulation compared to the base case repeal option (Net present value (NPV), $FY25, $millions, 5% discount rate)

Incremental cost or benefit	Summary	Base case	Remake option
Total upfront costs	These are paid by the Board and include the costs of employing staff and purchasing equipment and materials needed for border fence maintenance and repair.	-	-$5.40m
Total ongoing costs		-	-$11.14m
Avoided cost of privately managing wild dogs	If the BFM Regulation lapses, landholders would likely need to undertake additional wild dog management activities such as baiting, fencing and shooting[1]. These additional costs are avoided under the remake option.	-	$23.63m
Avoided cost of lost livestock to wild dog attacks (lost gross margin)	If the BFM Regulation lapses, wild dog attacks on livestock would increase[2], and as a result, reduce the value of agricultural production for affected landholders. These costs are avoided under the remake option.	-	$69.74m
Avoided cost of time spent managing wild dogs	Under the repeal option, the number of wild dogs entering the western division of NSW is expected to increase. As a result, it is expected that landholders will have to increase the time they dedicate to managing wild dogs. By valuing a landholders' time in dollars, the cost that is avoided under the remake option can be estimated.	-	$20.06m

[1] A report commissioned by the Western Local Land Services has previously identified the use of baiting, shooting and trapping for managing wild dogs within the NSW Western Division (Soil Conservation Service & GHD 2019, "Report – Border Fence Maintenance Board; Feasibility of extending the wild dog exclusion fence", Local Land Services). We anticipate these private management activities to increase if maintenance of the border fence was to cease

[2] Wild dogs attack and kill lambs and calves and injure adult sheep and cattle (Wicks, S, Mazur K, Please P, Ecker S & Buetre B, 2014, An integrated assessment of the impact of wild dogs in Australia, ABARES Research report no. 14.4, Canberra, April.)

Incremental cost or benefit	Summary	Base case	Remake option
Avoided cost of increased threat to native species	The increased presence of wild dogs in the western division of NSW may pose a risk to native animals, especially if their populations are already challenged by other threats[3]. There are reports of wild dogs killing wombats, echidnas and kangaroos[4]. The number of these attacks is expected to be higher under the repeal option, and therefore these costs are avoided under the remake option.	-	$47.04m
NVP		-	**$143.93m**
Benefit cost ratio (BCR)		-	**9.70**

Qualitative results

We looked at the impacts that couldn't be measured in dollars to see their impact on the cost-benefit analysis. Overall, this review shows that remaking the BFM Regulation is still likely to be the best option.

Table 2: Likely qualitative impact of potential costs and benefits of the remake option

Cost or benefit	Summary	Likely impact
Economic costs and benefits		
Avoided spread of disease to livestock	If the BFM Regulation is allowed to lapse and the Board can't raise sufficient funds for the ongoing maintenance of the border fence, the presence of wild dogs in the western division of NSW is expected to increase. As a result, wild dogs would encounter livestock more often, which would increase the spread of disease. The diseases *Echinococcus granulosus* and *Neospora caninum* are known to occur in wild dogs and can infect livestock. *Neospora caninum* is known to reduce agricultural productivity by increasing the rate of abortion of infected cows. *Echinococcus granulosus* is known to produce cysts which can reduce the quality of edible meat in livestock.	Material positive impact

[3] NSW Wild Dog Management Strategy 2022-2027, State of New South Wales

[4] Stakeholders have reported coming across evidence of wild dogs killing native animals including emus, possums, wallabies, wombats, kangaroos and echidnas (Wicks, S, Mazur K, Please P, Ecker S & Buetre B, 2014, An integrated assessment of the impact of wild dogs in Australia, ABARES Research report no. 14.4, Canberra, April)

Cost or benefit	Summary	Likely impact
	Increased diseases are associated with reduced agricultural productivity and are an extra cost that would affect farmers[5]. The remake option is expected to prevent this increase in diseases and the related costs. Avoiding the spread of diseases to livestock is considered a positive outcome of this option.	
Social costs and benefits		
Avoided disease and injury to pets and humans	Wild dogs can pose a threat to the health and safety of local communities[6]. Wild dogs can carry diseases that can spread to humans and to pets. For example, *Echinococcus granulosus* is also known to spread to humans and can require surgical treatment. This would create a social cost for affected people. There are also times that wild dogs have attacked or harassed people and pets[7][8]. It is reasonable to assume that under the repeal option, the increased presence of wild dogs in the western division of NSW would mean that these social costs would increase. The remake option would avoid these additional costs.	Minor positive impact
Avoided mental health costs	Encounters with wild dogs can also create mental health costs. Farmers have reported feeling upset and frustrated following wild dog attacks on their livestock[9] and feeling anxiety when living with the constant threat of a wild dog attack[10]. These mental health costs are expected to increase under the repeal	Minor positive impact

[5] An ABARES report cites research by Allen L 2008, *Wild dog management in Queensland: an issues paper*, Biosecurity Queensland, Brisbane and Lightfoot C 2010, *Social benefit cost analysis: wild dog management in Victoria*, Tyne Group that wild dogs can carry disease that can spread to livestock and humans (Wicks, S, Mazur K, Please P, Ecker S & Buetre B, 2014, An integrated assessment of the impact of wild dogs in Australia, ABARES Research report no. 14.4, Canberra, April.).

[6] Results from a national survey by Southwell, D, Boero, V, Mewett, O, McCowen, S & Hennecke B 2013, 'Understanding the drivers and barriers to participation in wild canid management in Australia: implications for the adoption of a new toxin, para-aminopropiophenone', *International Journal of Pest Management*, vol. 59, no. 1, pp. 35–46 but reported by ABARES found that, in Victoria, a small percentage of people were concerned about the threat which wild dogs posed to families, workers and tourists (Wicks, S, Mazur K, Please P, Ecker S & Buetre B, 2014, An integrated assessment of the impact of wild dogs in Australia, ABARES Research report no. 14.4, Canberra, April).

[7] An ABARES report cites research by Allen L 2008, *Wild dog management in Queensland: an issues paper*, Biosecurity Queensland, Brisbane and Lightfoot C 2010, *Social benefit cost analysis: wild dog management in Victoria*, Tyne Group that wild dogs can carry disease that can spread to livestock and humans (Wicks, S, Mazur K, Please P, Ecker S & Buetre B, 2014, An integrated assessment of the impact of wild dogs in Australia, ABARES Research report no. 14.4, Canberra, April.).

[8] NSW Wild Dog Management Strategy 2022-2027, State of New South Wales.

[9] Results from a national survey by Southwell, D, Boero, V, Mewett, O, McCowen, S & Hennecke B 2013, 'Understanding the drivers and barriers to participation in wild canid management in Australia: implications for the adoption of a new toxin, para-aminopropiophenone', *International Journal of Pest Management*, vol. 59, no. 1, pp. 35–46 but reported by ABARES reported that 35% of landholders reported anger towards managing wild dogs and 21% reported both distress and anger (Wicks, S, Mazur K, Please P, Ecker S & Buetre B, 2014, An integrated assessment of the impact of wild dogs in Australia, ABARES Research report no. 14.4, Canberra, April).

[10] Impact of Event Scale survey to assess the psychological stress experienced by people who had been directly impacted by wild dogs reported in Wicks, S, Mazur K, Please P, Ecker S & Buetre B, 2014, An integrated assessment of the impact of wild dogs in Australia, ABARES Research report no. 14.4, Canberra, April.

Cost or benefit	Summary	Likely impact
	option. Avoiding these mental health costs is a benefit of the remake option.	
Avoided conflict amongst landholders	Without the Board overseeing wild dog management, this responsibility would fall mostly upon landholders. This responsibility could result in conflicts amongst landholders which would weaken cohesion of communities[11]. Conflict can occur between public and private landowners, operators of private businesses and communities about responses, responsibilities and costs. If the BFM Regulation lapses, and wild dog numbers increase in the western division of NSW, these wellbeing costs are expected to increase. Avoiding these additional social costs is a benefit of remake option.	Minor positive impact
Environmental costs and benefits		
Costs to biodiversity	Wild dogs, including dingoes, may provide ecological benefits by assisting in the control of non-native predators, however the extent of this is uncertain[12].	Uncertain

Conclusion

The remake option, under which the BFM Regulation is remade without any substantial changes, shows a much stronger cost-to-benefit outcome and is the preferred option. This option will maintain the Board's current capacity to charge a reasonable rate, up to 7 cents per hectare, on landholders to maintain the border fence at the current standard.

As the assessment of the costs and benefits shows, the remake option provides the highest return on investment for maintaining the border fence. This option provides significant net benefit to the community compared to the repeal option.

[11] Fitzgerald, G and Wilkinson, R (2009). Assessing the social impact of invasive animals in Australia. Invasive Animals Cooperative Research Centre, Canberra.

[12] Stuck in the mud: Persistent failure of 'the science' to provide reliable information on the ecological roles of Australian dingoes in Castle, G, Malcolm, S Kennedy, Allen, Benjamin L Volume 285, September 2023, 110234.

While the rate paid by landholders is an expense for their farming business, the cost of undertaking wild dog control and stock losses would be significantly larger for farmers than the rate paid to the Board to maintain the border fence.

Appendix A – Cost-benefit analysis

Overview of approach

A cost-benefit analysis is an economic evaluation tool. It identified that the remake option will deliver the greatest economic, social and environmental value to the NSW community.

Consistent with best practice and Better Regulation Principles, this cost-benefit analysis follows the process outlined in the NSW Government Guide to cost-benefit analysis.

Step 1: Clearly define the objective of the option (and the base case).

The aim of the cost benefit analysis is to understand the costs and benefits of the remake option compared to the repeal option.

Step 2: Define the base case and develop the options.

2 options have been identified:

- Repeal option (base case for the cost benefit analysis) – this involves allowing the BFM Regulation to lapse, and the highest rate that the Board can charge landholders annually reverts to 1 cent per hectare.
- Remake option – under this scenario the BFM Regulation is remade without any substantial changes. This allows the Board to charge landholders an annual rate of up to a maximum of 7 cents per hectare.

Step 3: Identify the range of economic, social, and environmental costs and benefits of the options.

The remake option leads to a range of different economic, environmental and social outcomes. The cost-benefit analysis compares these outcomes in dollar terms to establish the incremental costs and/or benefits to the community, compared to the base case (repeal option).

This cost-benefit analysis looks at incremental costs and benefits where a clear link can be made between the proposed option and changes in real-world results. These changes include:

- market impacts (where we can see the prices of goods or services in markets and easily give a monetary value to the cost or benefit), and
- non-market impacts (where we can't see a price, so we use other methods to figure out a monetary value).

As outlined in Table 1 and Appendix B of this document, most of the benefits of the remake option come from *avoiding* economic, social and environmental costs that would happen under the repeal option.

The impacts are described further in the quantitative and qualitative result tables above.

Step 4: Forecast all quantifiable costs and benefits to 5 years.

The purpose of a cost-benefit analysis is to measure different outcomes using a common value such as dollars. The process:

- Draws on the best available information, including:
  - estimates of the private cost of management from the ABARES Pest Animal and Weed Management Survey
  - estimates of the value of a landholder's time from Transport for NSW 2025 value of travel time
  - average gross margin per dry sheep equivalent for different livestock types from the ABARES Australian Agricultural Census 2020-21
  - publicly available information from the NSW Department of Primary Industries and Regional Development on gross margins for sheep and cattle
  - estimates of willingness-to-pay for households to protect native species from wild dog attacks as reported by an ABARES survey.
- Focuses on impacts in NSW, consistent with the NSW Government Guide to Cost-Benefit Analysis.
- Adopts robust methodologies for putting a dollar-value on key costs and benefits, including the use of benefit transfer techniques (where appropriate). These methodologies draw on assessments such as comparable commercial charge or case study examples of outcomes.

Step 5: Where possible, value quantified costs and benefits relative to the base case.

Quantitative analysis

Table 1 shows the costs and benefits relative the base case.

A sensitivity analysis has been completed for the key assumptions of the cost-benefit analysis, including how the value of the remake option changes under:

- low or high spread scenarios of wild dog populations moving across regional NSW under the absence of border fence maintenance
- low, medium and high estimates of wild dog attacks on livestock
- low, medium and high estimates of willingness to pay of NSW households for the protection of native species from wild dogs
- low, medium and high estimates of the number of native species which are protected from being under threat from wild dogs by the maintenance of the border fence; and
- discount rates (3% and 7%).

Table 3 summarises the findings of the sensitivity analysis covering the performance of the option when individual assumptions (such as discount rate and cost estimates) are varied from the central case. The **central case** assumes:

- impacts of wild dogs on landholders are confined to the western division of NSW.
- the impact of wild dogs on attacking livestock is moderate (therefore reducing DSE).
- half of NSW households are willing to pay for protecting native species from wild dogs.[i]
- one native species is protected from being threatened by wild dogs through the maintenance of the border fence.
- costs associated with remaking the BFM Regulation are based on 2025 Border Fence Maintenance Board budget.
- application of a 5% discount rate.

The results of the sensitivity analysis show that even when key assumptions are varied, the remake option continues to deliver a large, positive NPV compared to the base case.

Table 3: NPV of the remake option relative to the base case (NPV, $FY25, $millions, 5% discount rate unless stated otherwise)

Key assumption		Base Case	NPV of Remake option
Central case		**-**	**$143.93m**
Wild dogs impact landholders outside the western division of NSW (up to 20% further)		-	$166.62m
Reduction in DSE due to wild dogs	Low	-	$129.98m
	High	-	$157.88m
Estimate of willingness to pay for protecting a native species from being threatened by wild dogs through maintenance of the border fence	Lower bound of confidence intervals	-	$130.15m
	Upper bound of confidence intervals	-	$158.64m
Number of households willing to pay for protecting native species from wild dogs	Only western division of NSW	-	$96.93m
	All of NSW	-	$190.98m
	Low (0 species)	-	$96.89m

Key assumption		Base Case	NPV of Remake option
Estimates of number of native species which are protected from being threatened by wild dogs through the maintenance of the border fence	High (2.33 species)	-	$206.66m
Upfront and ongoing costs associated with maintaining the border fence	20% decrease	-	$147.24m
	20% increase	-	$140.62m
Vary discount rate	3% discount rate	-	$149.35m
	7% discount rate	-	$138.91m

Note: When the Remake option provides an incremental benefit compared to the Base Case (Repeal option) the NPV is coloured green. Incremental costs compared to the Base Case are coloured red.

Qualitative analysis

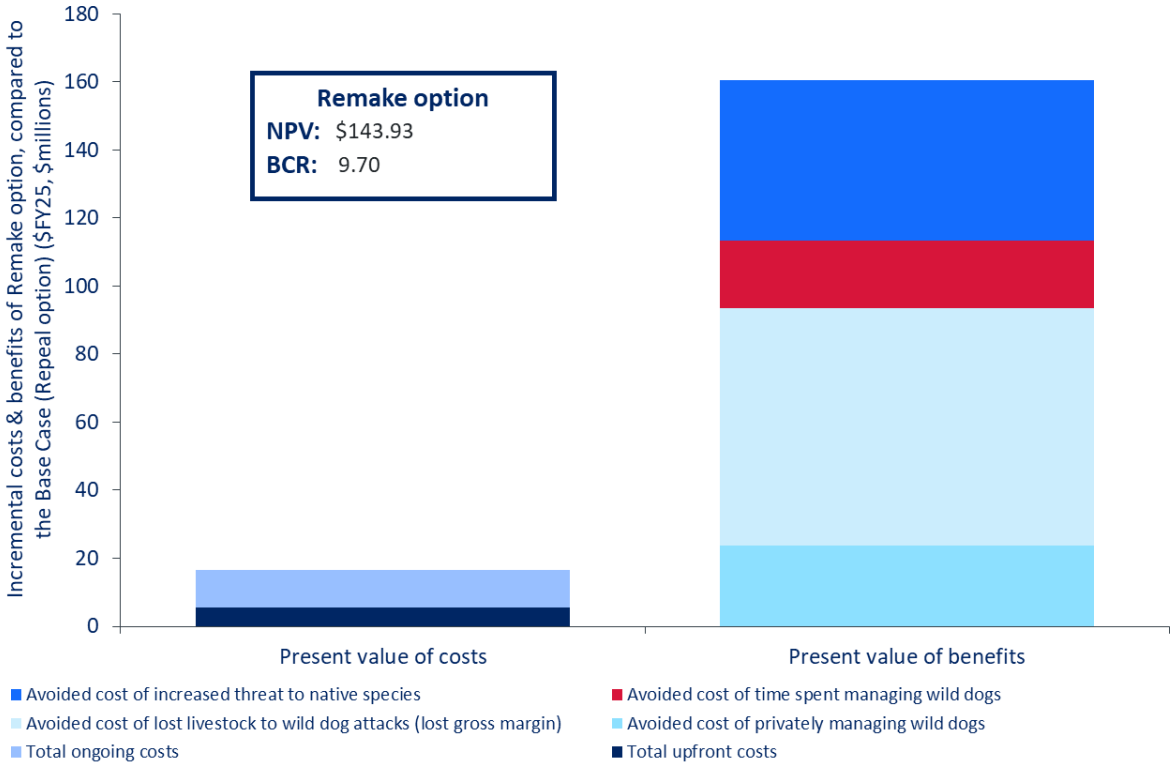
The cost-benefit analysis sought to value most costs and benefits, but not all impacts could be measured in dollar value. Table 1 compares these impacts, which indicate the remake option is likely to remain the preferred option.

Step 6: Compare the costs and benefits of the options (incremental to the Base Case) to identify the NPV and Benefit Cost Ratio (BCR) using a social discount rate.

Compared to the repeal option, the remake option delivers around $143.93 million in benefits to the community (central case, NPV terms over the modelling period) with a benefit to cost ratio of 9.7. This is shown in Figure 2 and Tables 3 and 4. This means the incremental benefits of remaking the BFM Regulation outweigh the incremental costs.

Figure 3 Incremental costs and benefits of the remake option, compared to the repeal option (NPV, $FY25, $millions, 5% discount rate)

A bar graph showing the incremental costs and benefits of the remake option, compared to the repeal option (NPV, $FY25, $millions, 5% discount rate). The total upfront and ongoing costs equal about 20 million this financial year. The combined value of the avoided costs of increase threat to native species, the avoided cost of lost livestock (lost gross margin), the avoided cost of time spent managing wild dogs and the avoided cost of privately managing wild dogs is over 160 million.



As the NPV is $143.93 is higher than 0 and the BCR of 9.7 is higher than 1, it indicates that remaking the BFM Regulation results in a net benefit to the community relative to the base case.

Step 7: Analysis of distribution of costs and benefits across the community

The upfront and ongoing costs associated with maintaining the border fence are borne by the Board, which is mostly funded by ratepayers, with some funding from Government.

Ratepaying landholders will receive most of the benefits of the remake option. Ratepayers will benefit from avoided:

- loss of agricultural production from anticipated increases in wild dog presence under the repeal option
- loss of time and money they would otherwise have to spend under the repeal option to privately manage wild dogs

- disease and injury to humans and pets, mental health costs and social conflict.

While these social benefits are all mostly expected to benefit ratepaying landholders, they extend to broader communities in the western division of NSW which may be impacted by the increased presence of wild dogs under the repeal option.

Under the scenario where wild dogs spread beyond the region of ratepaying landholders, these benefits (or avoided costs) also help other landholders in the NSW community.

It is also important to think about the environmental benefit of protecting native species from the threat of an increase in wild dog attacks, which is expected under the repeal option. The sensitivity analysis considers the scenarios (i) if only ratepayers in the western division of NSW are willing to pay to protect native species, (ii) where all properties of NSW have willingness-to-pay, and (ii) an intermediate scenario where half of NSW properties are willing to pay. Under each of these scenarios the benefits would spread to those who are willing to pay. While it has not been included in the quantitative analysis, there is potential for environmental costs associated with remaking the border fence. These would predominantly arise from the exclusion of wild dogs, a top predator, from the ecosystem within the western division of NSW. While it would be expected these costs to be borne by the community, information about these costs is inconclusive.

Key assumptions and limitations

Due to uncertainty surrounding wild dog ecology, this cost-benefit analysis is based on several key assumptions. To manage the risk attached to these assumptions, the cost-benefit analysis:

- documents key assumptions
- includes a sensitivity analysis to identify how the NPV of the option varies if the key assumptions that drives its value are different
- discloses the limitations of the analysis.

The key cost-benefit analysis factors, which apply in both analyses, are outlined in Table 4. A detailed set of assumptions are included Appendix B.

Table 4: Cost benefit analysis key parameters

Assumption/parameter	Value
Starting year (financial year)	2026
Price base	$FY2025
Appraisal period	5 years
Discount rate	5% real[13] (with sensitivities of 3% and 7%)

Some key limitations associated with these assumptions include:

- **Uncertainty around the increase in wild dog attacks** should the BFM Regulation lapse and, the border fence is not properly maintained.
- **The quantification of environmental impact** of managing wild dogs depends on how wild dogs affect native species. It is assumed that the presence of wild dogs in the western division would result in at least one native species becoming threatened. However, while there are reports of wild dogs attacking native animals, there is no conclusive evidence that a specific species would become threatened as a result. This predicted loss in native species is valued at reported willingness-to-pay which may not reflect the true value. On the contrary, some believe that wild dogs could provide an ecological benefit. However, due to uncertainty surrounding the existence and extent of this benefit, environmental impact is not captured in the cost-benefit analysis model. As a result, the quantified environmental impact is limited by current scientific knowledge and available data.

Appendix B – Detailed key assumptions

Table 5 provides a comprehensive list of the key assumptions that were used in producing the cost-benefit analysis model.

Table 2: Summary of key assumptions

Assumption	Value	Data source
Number of properties facing wild dog presence		
Only properties paying the wild dog rate within the western division of NSW will be affected by wild dogs if the border fence is no longer maintained.	1,469 properties (equal to a total of 29,184,267 hectares)	Number of properties currently paying wild dog rates (and sum of total hectares of these properties).
Assumes that wild dogs will spread beyond the properties of the current ratepayers and impact additional properties. This scenario includes some properties which are not currently paying wild dog rates.	1,762.8 properties (equal to a total of 35,021,120.08 hectares)	Assumed 20% increase in number of properties impacted by wild dogs given lack of data (and sum of total hectares of these properties).
Proportion of properties impacted by wild dogs		
Under Base Case	100%	Assume that all properties will be impacted by the presence of wild dogs if the BFM Regulation is repealed.

Assumption	Value	Data source
Under Option 1	20%	Average of properties experiencing a wild dog problem across 2017, 2019 and 2022 as reported in ABARES 2024, Pest animal and Weed Management Survey 2016/2019/2022: NSW land manager survey results, Figure1, p. 7.
Private cost of management		
Cost of privately engaging in management of wild dogs	$4,405 / property	ABARES 2024, Pest animal and Weed Management Survey 2016/2019/2022: National land manager survey results, Table 8.
Average dry sheep equivalent (DSE) by pasture type		
Unimproved native pasture	3 DSE / hectare	Meat & Livestock Australia, 2012, Analysis of feed-based audit, Final Report, Table 1, p.22, available at https://www.mla.com.au/contentassets/ /b.pas.0297_final_report.pdf.
Fertilised and oversown native pasture	5 DSE / hectare	
Fertilised native pasture	5 DSE / hectare	
Proportion of different pasture types across the area		
Unimproved native pasture	80%	Estimated based on information from NSW DPI, 2020. Far West Snapshot. Available at: https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0008/1275380/Far-West-Snapshot.pdf?utm_source.
Fertilised and oversown native pasture	10%	
Fertilised native pasture	10%	
Value of a farmer's day		

Assumption	Value	Data source
Value of eight hours of a person's day	$165 / day	Based on value of travel time of $20.62 per hour from Transport for NSW, 2025, TFNSW Economic parameter values, p.12. available at https://www.transport.nsw.gov.au/system/files/media/documents/2025/tfnsw-economic-parameter-values-jan-2025.pdf.
Days spent privately managing wild dogs		
Historical number of days spent managing wild dogs	22.67 days	Average of number of days spent managing wild dogs across 2016, 2019 and 2022 reported in ABARES 2024, Pest animal and Weed Management Survey 2016/2019/2022: National land manager survey results, Table 9.
Gross Value of Agricultural Production (GVAP) for the Western LGAs		
Sheep and lambs	$261m	DAFF, 2022. Australian Agricultural Census 2020-21 visualisations - SA2, Available at: https://www.agriculture.gov.au/abares/aclump/land-use/agriculture-census-dashboards-sa2.
Meat cattle	$120m	
Other	$5m	
Gross margin per dry sheep equivalent		
Dorper Ewe	$37 / DSE	Localised from NSW DPI GM budgets, NSW DPI, Dorper Ewes-Dorper Rams, October 2024, available at https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0011/1596125/Dorper-ewes-dorper-rams-1000-Ha.pdf.
Merino Ewe	$28 / DSE	Localised from NSW DPI GM budgets, NSW DPI, Merino Ewes (20 micron) - Merino Rams, October 2024, available at https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0007/1596130/Merino-ewes-20-micron-1000-Ha.pdf.

Assumption	Value	Data source
Merino Weather	$19 / DSE	DPI. Merino Wethers (20 micro), October 2024, available at https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0010/1596133/Merino-wethers-20-micron-1000-Ha.pdf.
Merino 1st X	$36 / DSE	DPI, 1st Cross Ewes - Terminal Meat Rams, October 2024, available at https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0010/1596124/1st-cross-ewes-terminal-rams-1000-Ha.pdf.
Average	$30 / DSE	Average of above four sheep types.
Gross margin for cattle per dry sheep equivalent (DSE)		
Inland store weaner	$40 / DSE	Localised form NSW DPI GM budgets, NSW Department of Primary Industries and Regional Development, Beef Cattle Gross Margin Budget, October 2024, https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0010/1585261/Beef-enterprise-inland-weaners-gross-margin-Oct-2024.pdf.
Feeder steers, weaner heifers	$52 / DSE	Localised form NSW DPI GM budgets, NSW Department of Primary Industries and Regional Development, Beef Cattle Gross Margin Budet, October 2024, available at https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0011/1585271/Beef-enterprise-feeder-steers-gross-margin-Oct-2024.pdf.
Average gross margin for cattle per dry sheep equivalent (DSE)	$46 / DSE	Average of the gross margin for the aforementioned cattle types.
Reduction in sheep and lamb DSE due to wild dog presence		

Assumption	Value	Data source
Under the Base Case	0.4% / 0.5% / 0.6% (Low / Central / High scenarios)	Conservative assumption was made and confirmed from consultation with DPHI.
Under Option 1	0.2% / 0.25% / 0.3% (Low / Central / High scenarios)	
Reduction in cattle DSE due to wild dog		
Under the Base Case	0.4% / 0.5% / 0.6% (Low / Central / High scenarios)	Conservative assumption was made and confirmed from consultation with DPHI.
Under Option 1	0.2% / 0.25% / 0.3% (Low / Central / High scenarios)	
Willingness to pay to protect a native species from becoming threatened due to wild dogs		
Average willingness to pay to protect a native species per household in NSW	$6.16 / native species / household	Based on an average of willingness-to-pay of Victorian, South Australian and Queensland households (inflated to 2025 prices) from a survey reported in Wicks, S, Mazur K, Please P, Ecker S & Buetre B, 2014, An integrated assessment of the impact of wild dogs in Australia, ABARES Research report no. 14.4, Canberra, April.
Average number of species protected with wild dog management (assuming that wild dog attacks grow by 5% in the absence of management)	1 species	Based on an average of the hypothetical estimate of number of native species that would be protected from becoming threatened by wild dogs through control measures in Victoria, South Australia and Queensland as reported in Wicks, S, Mazur K, Please P, Ecker S & Buetre B, 2014, An integrated assessment of the impact of wild dogs in Australia, ABARES Research report no. 14.4, Canberra, April.
Number of properties which are willing-to-pay for the protection of native species from wild dog attacks		

Assumption	Value	Data source
Only properties paying the wild dog rate within the western division of NSW	1,469 properties	Conservative estimate for number of properties willing-to-pay for the protection of native species from wild dogs based on the number of properties currently paying wild dog rates in the western division of NSW.
All of NSW	3,357,785 properties	Number of private dwellings in NSW as of 2021 as reported by the Australian Bureau of Statistics, 2021 New South Wales, Censes All persons QuickStats, accessed https://www.abs.gov.au/census/find-census-data/quickstats/2021/1, 1 April 2024.
Half of NSW	1,678,892.5 properties	Arbitrarily chose 50% of NSW dwellings as an intermediate estimate.
Cost benefit analysis key parameters		
Social discount rate	7% (3% and 10% under sensitivity analysis)	The social discount rate for use in cost-benefit analysis as defined in NSW Treasury 2023, NSW Government Guide to Cost-Benefit Analysis.
Time horizon	5 years (2026 – 2030)	Under the SL Act, the Government is obliged to review and remake most statutory rules every 5 years.
Price base	$FY25	