



FINAL REPORT

Regulation of private swimming pool barriers

Better Regulation Statement

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The Office of Local Government
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Executive summary

Backyard swimming pools improve the lifestyle and amenity of many households in NSW. However, they also present a safety risk to young children. Recent data suggests that on average 5-6 children under the age of five drown in backyard swimming pools in NSW every year. There are also a significant number of ‘near drownings’, several of which result in permanent disability.

Regulation of backyard swimming pools

The requirement for backyard swimming pools to be fenced was first introduced at a statewide level in NSW in 1992. Since that time regulations have been progressively tightened, including two rounds of reform over the past decade. Mandatory pool fence inspections on sale or lease of the property were implemented in April 2016.

In 2015, the Minister for Local Government asked Mr Michael Lambert (former Secretary of NSW Treasury) to review the current regulatory framework for swimming pools in NSW (the Lambert Review). The final review report was provided to the Minister in December 2015. The review makes 62 recommendations that mostly tighten the regulation around backyard swimming pools further.

The need for government action

Drownings and near drownings of children under the age of five impose significant costs on the community. Using standard approaches to valuing mortality and morbidity costs, the cost to the NSW community is estimated at around \$41.6 million per year based on historical averages (table 1).

1 Cost to the community from child drowning in backyard swimming pools

	Incidence	Cost per incidence	Total cost
	No.	\$	\$
Drownings resulting in fatalities	5.58	5.497	30.66
Near drownings Severe impairment	2.80	3.477	9.74
Moderate impairment	2.80	0.396	1.11
Full recovery	22.4	0.003	0.08
Total			41.59

Source: CIE estimates.

The above costs are incurred by the community despite the significant regulation in relation to pool fences already in place and the strong incentive for pool owners with small children to keep their children safe. Given this substantial cost to the community, there is an in-principle case for additional regulation.

Options to address the problem

There were four options considered.

- Option 1: Maintain the status quo — existing pool safety regulations in NSW would continue to apply.
- Option 2: Option proposed by the Inter-Governmental Working Group — this option focuses on simplifying and clarifying the standard, as well as a public education/information campaign.
- Option 3: Lambert Review recommendations — this option involved introducing all of the recommendations outlined in the Lambert Review.
- Option 4: A community information/education campaign — the existing regulatory framework would remain in place and a community information/education campaign would be implemented.

The costs and benefits of the regulatory reform options relative to the status quo are summarised in table 2. As the costs of both reform options are estimated to significantly outweigh the safety benefits and any benefits associated with a simpler regulatory framework, the status quo (Option 1) is the preferred regulatory framework.

2 Summary of estimated impact of regulatory options

	Option 2	Option 3
	\$ million	\$ million
Community safety	0.00	272.20
Pool owners	- 201.47	- 1 080.31
Pool certifiers	0.00	- 5.49
Pool builders/installers	0.00	- 1.81
Councils	0.00	- 2.70
State Government	0.00	- 2.29
Total	- 201.47	- 820.40

Source: CIE estimates.

The above estimates do not include the costs and benefits of a public information/education campaign. This could include preparation of guidance material for pool owners and other stakeholders (to the extent that this is possible under the current copyright arrangement relating to the standard), as well as a broader awareness campaign.

Although the costs and benefits of a public information campaign could not be quantified, this strategy has the advantage of being able to target households where the risk is highest.

The evidence suggests that Royal Life Saving have in the past achieved significant reach with a relatively modest level of funding. Assuming a cost of around \$100 000 per year (the funding provided to Royal Life Saving's information campaign on the recently implemented sale and lease inspection arrangements), it would take a minimal impact on safety outcomes for such an investment to deliver a net benefit to the community. This suggests that maintaining the existing regulatory environment, with a public education campaign is the preferred option, subject to ongoing monitoring of its effectiveness.

1 *Background and introduction*

Backyard swimming pools improve the lifestyle and amenity of many households in NSW. However, they also present a safety risk to young children. Recent data suggests that on average 5-6 children under the age of five drown in backyard swimming pools in NSW every year. There are also a significant number of ‘near drownings’, several of which result in permanent disability.

Regulation of private swimming pools in NSW

Fences around backyard swimming pools help to reduce the risk of child drownings (and near drownings). The requirement to fence backyard swimming pools was introduced at a statewide level in NSW in 1992, with the *Swimming Pools Act 1992*. This requirement has significantly reduced the number of child drownings (and near drownings) recorded in NSW.¹

The regulatory requirements in relation to backyard swimming pools have been gradually tightened over time. Key changes are summarised below.

The 2009 amendments to the Swimming Pools Act

Following a review initiated in 2006, key amendments to the regulatory regime under the 2009 amendment Act included (in effect from 1 July 2010 onwards):

- a requirement for four sided barriers (as opposed to three sided barriers) for newly constructed pools
- removal of automatic exemptions in relation to small, large and waterfront properties from new pools constructed from 1 July 2010 onwards
- a requirement for councils to investigate complaints in a reasonable timeframe.

The 2012 amendments to the Swimming Pools Act

The Act was further amended in 2012, with the key amendments including:

- establishment of a register for backyard swimming pools — all private pool owners were required to register their pools and self-assess pool barrier compliance against the regulations

¹ Independent Review of Swimming Pool Barrier Requirements for Backyard Swimming Pools in NSW, Discussion Paper, September 2015, p. 7.

- a requirement for a swimming pool inspection program — all councils were required to develop a swimming pool inspection program and issue compliance certificates where inspected pools comply with the Act
- provision for accredited certifiers to inspect pools and issue certificates of compliance
- a requirement for a compliance certificate before a property with a private pool is sold or leased.

The implementation of the final requirement was delayed several times and there were subsequent amendments to allow the vendor of a property to pass the obligation for a certificate onto the purchaser. This element of the reforms was finally implemented from 29 April 2016.

The Lambert Review

In 2015, the Minister for Local Government asked Mr Michael Lambert (former Secretary of NSW Treasury) to review the current regulatory framework for swimming pools in NSW (the Lambert Review). The final review report was provided to the Minister in December 2015. The review makes 62 recommendations that mostly tighten the regulation around backyard swimming pools, which would have an impact on pool owners, the industry (including installers and inspectors) and state and local government.

The Lambert Review made 62 recommendations under 10 major themes:²

- Pool safety standards
- Exemptions from pool barrier standards
- Treatment of portable pools and spas
- Swimming pool register
- The role, function, training, accreditation, accountability and fees for pool certification
- Inspection and certification requirements
- Compliance and enforcement
- Information, research and education
- Governance arrangements
- Resourcing and funding.

Better regulation statement

The NSW Government *Guide to Better Regulation* requires that a Better Regulation Statement (BRS) is prepared for all significant regulatory proposals. The BRS must consider the best practice principles set out in Box 1.1. In doing this, a Better Regulation Statement:

- reviews the objectives and rationale being met by the regulatory changes

² See appendix A for the full list of recommendations.

- considers the size and nature of the problem being addressed
- considers the options to address the problem
- assesses the benefits and costs of alternative options, and
- recommends a preferred option.

1.1 Better Regulation Principles³

Principle 1: The need for government action should be established

Principle 2: The objective of government action should be clear

Principle 3: The impact of government action should be properly understood by considering the costs and benefits of a range of options, including non-regulatory options

Principle 4: Government action should be effective and proportional

Principle 5: Consultation with business and the community should inform regulatory development

Principle 6: The simplification, repeal, reform or consolidation of existing regulation should be considered

Principle 7: Regulation should be periodically reviewed, and if necessary reformed to ensure its continued efficiency and effectiveness.

Complying with these best practice principles helps to decision makers choose policy options that deliver the largest net benefit to the community, based on the best available evidence, while avoiding unnecessarily adding to the red tape burden on businesses and the community.

This report

This report is a Better Regulation Statement to support the Government's response to the Lambert Review. The remainder of this report is set out as follows.

- Chapter 2 sets out the need for government action, including the size and nature of the current safety problem caused by backyard swimming pools
- Chapter 3 articulates the objectives of reform and the options for achieving these objectives.
- Chapter 4 assesses these objectives, using cost-benefit analysis where possible and identifies a preferred option.
- Chapter 5 addresses other matters, including outlining the consultation undertaken for this review.

³ Better Regulation Office, 2009, Guide to Better Regulation, November, p. 7.

2 *Need for government action and objectives*

The best practice regulatory principles require that the need for government action is established (Principle 1). This section outlines the nature and size of the safety problem caused by backyard swimming pools in NSW.

Nature of the problem

Backyard swimming pools improve the lifestyle and amenity of many households in NSW. However, they also create a safety risk to young children. Children under the age of five are particularly vulnerable, as many in this age group can walk or crawl, but do not have the risk awareness or gross motor skills to prevent themselves from drowning should they enter the water unsupervised.

While supervision is the first line of defence against child drownings, there will be inevitable lapses. Pool barriers therefore provide an important second line of defence in the event of a lapse in supervision.

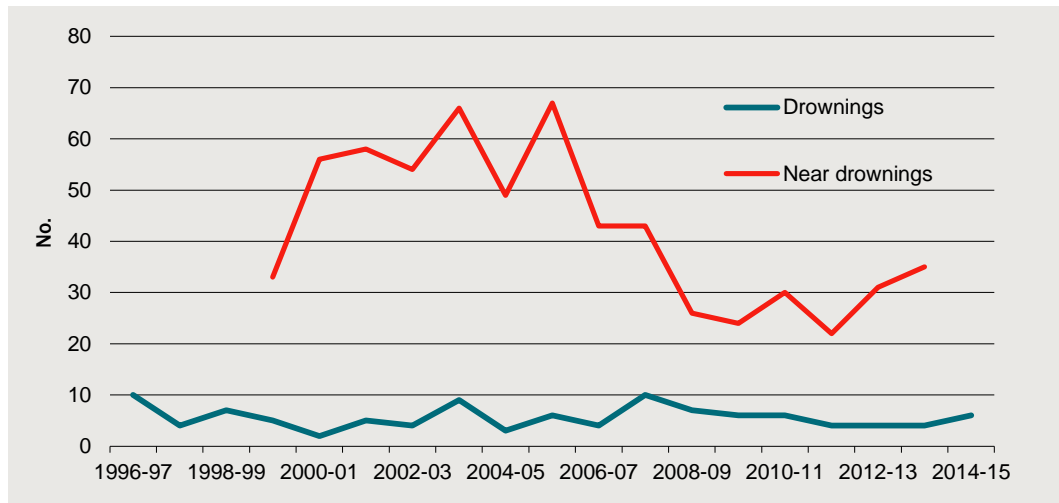
Size of the problem

Safety outcomes over time

The number of drownings and near drownings in backyard swimming pools over time is shown in chart 2.1. Although the population has increased over this period, there has not been a corresponding increase in the number of child drowning and near drownings in backyard swimming pools.

- Over the period for which data is available, the number of near drownings has averaged around 42.5 per annum. However, there appears to have been a significant shift in the number of near drownings from around 2008/09 onwards (possibly coinciding with reforms). Over the period between 1999/2000 and 2007/08, the number of near drownings averaged around 52.1 per annum. This compares to an annual average of around 28 over the period from 2008/09 onwards. As there seems to be sufficient observations to suggest this is a new trend, rather than a statistical anomaly, we therefore use 28 near drownings per year as the baseline, based on the period between 2008/09 and 2013/14.
- By contrast, the average number of drownings has remained broadly steady at around 5-6 fatalities per year on average, regardless of the period chosen. We use the average over the whole period for which data are available (2006/07 to 2014/15) as indicative of the baseline, implying around 5.8 drownings per year.

2.1 Number of safety incidents



Data source: Lambert Review

Valuing the cost to the community

Although we do not have detailed information on the impact on the specific children that have been involved in near drowning incidents in NSW, the Lambert Review refers to studies suggesting that:

- around 20 per cent of near drowning result in some form of permanent cognitive disability
- around 10 per cent result in a severe disability.⁴

In the absence of more detailed information on the specific cases, we assume the following.

- Around 10 per cent of near drownings (or around 2.8 per year) result in a mild or moderate disability.
- A further 10 per cent of near drownings (a further 2.8 per year) result in a severe or profound disability.

The approach to valuing the costs to the community from child drownings and near drownings is summarised in box 2.2.

⁴ Lambert, M. *Independent Review of Swimming Pool Regulation: Final Report*, 7 December 2015, pp. 22-21.

2.2 Valuing safety impacts

Measuring the benefits of reduced mortality through fatal drowning incidents involves establishing a monetary value for lives saved. The value of a statistical life VSL is a notional value that individuals place on reducing the risk of death. A related concept is the value of a life year (VLY), which refers to the notional value an individual places on each additional year of life. The two concepts are related because the VSL should reflect the discounted value of expected future life years.

- In the CBA, we use a VSL of around \$5.5 million. This is based on a constant VLY of \$182 000 and a discount rate of 3 per cent, as recommended by the Commonwealth Office of Best Practice Regulation (these recommendations were based on a review by Abelson 2008)⁵ over 80 years (based on the life expectancy of a young child in Australia).
- The medical and morbidity costs for near drownings depend on the severity of any disability acquired from the incident.
 - Each near drowning that results in a severe permanent disability is valued at \$3.47 million, which includes the following.
 - ... Morbidity costs of around \$1 million, based on a disability weight of 0.18 (the average of severe and profound intellectual disabilities used in the Global Burden of Disease study) over the 80 years of the child's life.
 - ... Medical costs of around \$37 000, based on the average cost of treatment for a patient admitted to a public hospital with a respiratory system disorder requiring ventilator support (Diagnosis Related Group E40A).⁶
 - ... Costs of a full-time carer (assumed to be a parent) of around \$2.5 million, based on the average wage over the child's 80 year life.
 - Each near drowning that results in a mild/moderate disability is valued at \$0.4 million, which includes the following.
 - ... Morbidity costs of around \$393 000, based on a disability weight of 0.07 (the average of mild and moderate intellectual disabilities used in the Global Burden of Disease Study) over the child's 80 year life.
 - ... Medical costs of \$3,400, based on an estimated average cost of \$1,694 per bed day for an admitted acute care patient in NSW hospitals (as reported by the Independent Hospital Pricing Authority)⁷ and an average length of stay in hospital of two days.
 - Each near drowning that does not result in a permanent disability is valued at around \$3400, based on the medical costs.

⁵ Abelson, P. 2008, *Establishing a Monetary Value for Lives Saved: Issues and Controversies*, Working papers in cost-benefit analysis, WP 2008-02, Office of Best Practice Regulation, Department of Finance and Deregulation.

⁶ Independent Hospital Pricing Authority, *National Hospital Data Collection, Australian Public Hospitals Cost Report 2013-14 Round 18*, Appendix 3, February 2016.

⁷ Independent Hospital Pricing Authority, *National Hospital Data Collection, Australian Public Hospitals Cost Report 2013-14 Round 18*, Appendix 5, February 2016.

Bringing the above information together suggests that in monetary terms, drownings and near drownings of children under the age of five in backyard swimming pools imposes a cost on the NSW community of around \$41.6 million per year based on historical averages (table 2.3).

2.3 Cost to the community from child drowning in backyard swimming pools

	Incidence	Cost per incidence	Total cost
	No.	\$	\$
Drownings resulting in fatalities	5.58	5.497	30.66
Near drownings Severe impairment	2.80	3.477	9.74
Moderate impairment	2.80	0.396	1.11
Full recovery	22.4	0.003	0.08
Total			41.59

Source: CIE estimates.

Need for government action

The above costs are incurred by the community despite the significant regulation in relation to pool fences already in place and the strong incentive for pool owners with small children to keep their children safe. Given this substantial cost to the community, there is an in-principle case for additional regulation.

3 *Objectives and options*

Reform objectives

An important requirement of a Better Regulation Statement is clear articulation of the objectives of a regulatory proposal (Principle 2).

The objectives of the reforms include:

- to reduce the number of child drownings and near drownings
- to simplify the existing regulatory framework.

Options being considered

There are four options for achieving the above objectives being considered in this cost benefit analysis.

- **Option 1:** Maintain the status quo - existing pool safety regulations in NSW would continue to apply.
- **Option 2:** Option proposed by the Inter-Governmental Working Group – this option focuses on simplifying the existing arrangements.
- **Option 3:** Lambert Review recommendations – this option would involve introducing all of the recommendations outlined in the Lambert Review.
- **Option 4:** A community information/education campaign – the existing regulatory framework would remain in place and a community information/education campaign would be implemented.

The options are described in further detail below.

Option 1: Status quo

The current regulations around pool safety barriers in NSW includes the following elements.

- Three different Australian Standards, the application of which depends on the date of installation or modification of the pool/safety barrier
- One piece of governing legislation
- Exemptions allowed for a range of pools including:
 - those where construction commenced prior to 1/7/2010 and situated on small, large or waterfront properties
 - those where construction commenced prior to 1/8/1990.

- Three yearly mandatory inspections by councils to high risk properties, in particular, tourist and visitor accommodation and strata or community schemes with more than two dwellings
- The requirement of a compliance certificate when selling or leasing a property, unless already subject to a mandatory inspection program, where the obligation to obtain a compliance certificate may be passed on to purchaser via a non-compliance certificate.

Option 2: Option proposed by the Inter-Governmental Working Group

In response to concerns around the complexity of the current regime where three Australian Standards apply, the option proposed by the Inter-Governmental Working Group focuses on simplifying the existing regulatory regime to make it easier for pool owners (and certifiers) to identify what standard applies and what they need to do to make it comply.

Key elements of the option proposed by the IGWG are as follows.

- The NSW Government would follow the Queensland Government's approach of effectively developing its own standard through applying variations to the Australian standard.
- The newly developed standard would be established as the single standard to apply in NSW. However, the existing legislative exemptions would continue to apply.
- A significant education campaign, including provision of relevant guidance material to pool owners (and certifiers).

Option 3: Lambert Review recommendations

The Lambert review makes 62 recommendations that mostly tighten the regulation around backyard swimming pools. The recommendations contain five major regulatory changes as follows.

- 1 Clarification of the standard, including a move to a single standard for pool barriers and removal of exemptions.
- 2 Changes to compliance system, including introduction of a four yearly inspection program.
- 3 Changes to the certification system for swimming pools (including accreditation and training requirements for pool certifiers).
- 4 Requirement for the pool barrier builders and installers to have the necessary training and knowledge to install pool barriers in conformity with the standard.
- 5 Changes to the treatment of portable pools and spas.

In addition to the above regulatory changes, the Lambert Review recommended a significant public information/education campaign.

Option 4: Public education/information campaign

The NSW Government's Guide to Better Regulation requires that non-regulatory options are considered.⁸ A non-regulatory option canvassed by the Lambert Review was a public education/information campaign. Under this option, the existing regulatory arrangements would remain in place.

⁸ Better Regulation Office, 2009, Guide to Better Regulation, November, p. 13.

4 *Assessment of options*

Cost benefit analysis

In general, tightening the regulation around backyard pool safety would be expected to deliver benefits in terms of fewer child drownings or near drownings resulting in permanent disabilities. However, these safety benefits must be weighed up against any increase in compliance costs for pool owners, industry, as well as state and local government.

Cost-benefit analysis provides a systematic framework for weighing up the costs to pool owners against the safety benefits to the community. This helps to ensure that regulatory decisions are in the best interests of the community (i.e. the benefits of the additional regulation outweighs the costs) and that the best policy options (i.e. the option that delivers the greatest net benefit to the community) are chosen, thereby avoiding unnecessary 'red tape'. However, even with good analysis, often uncertainties remain and in these circumstances, decisions need to be made under uncertainty. Rigorous analysis also needs to be robust which means uncertainty and its implications need to be objectively assessed through sensitivity and risk analysis.

The costs and benefits of the recommendations are estimated over a 30 year period. As some options involve a significant upfront cost in return for a stream of future benefits, we consider it appropriate to estimate the costs and benefits over a longer period than ten years as is frequently used in regulatory impact analysis. The estimates presented in net present value (NPV) terms, where a positive NPV is a net benefit and a negative NPV is a net cost to the community.

Following NSW Government Guidelines, we use a discount rate of 7 per cent as the central case, with 4 per cent and 10 per cent used as alternatives.

Option 1 (the status quo)

The benefits and costs of regulatory proposals must be assessed against a baseline; that is, what would happen in the absence of the proposed changes. Here, the status quo (Option 1) is used as the baseline, against which the benefits and costs of the remaining options are assessed. This implies that if all the other options are estimated to deliver a net cost relative to the baseline, Option 1 is the preferred option.

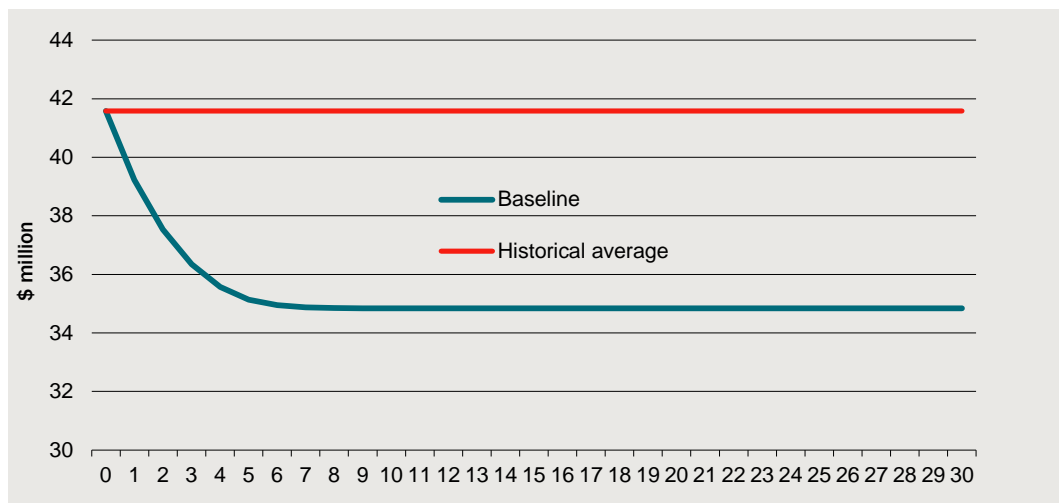
As the status quo is used as the baseline, the historical data on child drownings and near drownings is a reasonable starting point for estimating future safety outcomes in the absence of the proposed changes. One complicating factor in this case is that a 'status quo' baseline would include the 2012 amendments, some of which were implemented

only in April 2016. This means that the historical data does not include the impact of the recently implemented sale and lease inspection requirements.

Based on a comparison with drowning rates in Western Australia (adjusted for differing levels of pool ownership), we estimated that mandatory four yearly inspection could reduce child drownings and near drownings in NSW by around 33 per cent. We also estimated that sale and lease inspection requirements are likely to be about half as effective as mandatory four yearly inspections in achieving compliant pool fences. This implies that the sale and lease arrangements could reduce child drownings and near drownings by around 16-17 per cent from historical rates. Further details are provided in the accompanying cost-benefit analysis report.⁹

Therefore, under our baseline scenario, the cost to the community of child drownings and near drownings in backyard swimming pools decreases from the current level of around \$41.6 million to around \$34.8 million after around five years (chart 4.1).

4.1 Baseline used in CBA



Data source: CIE estimates.

Option 2: Option proposed by Inter-Governmental Working Group

In general, the capital costs for pool owners would significantly outweigh the limited benefits of simplifying the regulatory regime (table 4.2). Although there would be some benefits from reducing the number of standards in operation, much of the ambiguity seems to relate to the status of pre-1990s pools, which the IGWG recommendations do little to resolve. There are unlikely to be any significant safety benefits from moving to a single standard.

⁹ CIE, *Review of swimming pool fence requirements: Cost-benefit analysis*, August 2016.

4.2 Estimated impact of the IGWG options

	4 per cent discount rate	7 per cent discount rate	10 per cent discount rate
	\$ million	\$ million	\$ million
Community safety	0.00	0.00	0.00
Pool owners	- 231.96	- 201.47	- 179.81
Pool certifiers	0.00	0.00	0.00
Pool builders/installers	0.00	0.00	0.00
Councils	0.00	0.00	0.00
State Government	0.00	0.00	0.00
Total	- 231.96	- 201.47	- 179.81

Source: CIE, *Review of swimming pool fence requirements: Cost-benefit analysis*, August 2016.

These estimates do not include any benefits or costs of a public information/awareness campaign. To our knowledge there has not been any rigorous studies attempting to measure the impacts of pool safety campaigns. Nevertheless, human behaviour was a factor in all child deaths, so this approach offers the prospect of achieving some benefits at a fraction of the cost of regulatory measures.

Option 3: Lambert Review recommendations

Table 4.3 summarises the expected impacts of each of the five major regulatory changes contained within the Lambert Review recommendations.

4.3 Indicative impacts of recommendations

	Relevant recommendations	Impact
Move to a single standard for pool barriers	1b, 2a and 2b	<ul style="list-style-type: none"> ▪ Cost to pool owners of applying for a S22 exemption. ▪ Cost to councils of assessing S22 exemption application (assumed to be passed onto pool owners through an increase in application fees). ▪ Where refused, cost to pool owner of retrofitting to comply with current standard (this may be reduced through using an alternative solution) ▪ Potential safety benefits. ▪ Simplification of standards — benefit realised through lower inspection costs.
Improved compliance systems, including introduction of a four yearly inspection program	4a, 4b, 4c, 6d, 7b, 7d, 7e, 7i and 10c	<ul style="list-style-type: none"> ▪ Cost to Government of upgrading swimming pool register. ▪ Cost to Government of operating an appeals system. ▪ Costs associated with additional inspections (including administration and follow-up where non-compliance has been identified). ▪ Reduced costs per inspection due to economies of scale. ▪ Cost of rectifying faults.

	Relevant recommendations	Impact
		<ul style="list-style-type: none"> ▪ Safety benefits.
Changes to accreditation and training requirements for pool certifiers	5b, 5d, 5e, 5m	<ul style="list-style-type: none"> ▪ Cost to private pool inspectors of complying with requirements. ▪ Cost to council pool inspectors of complying with requirements. ▪ Cost to Government of preparing guidance material and providing support services. ▪ Cost of operating an active audit program.
Requirement for the pool barrier builders and installer to have the necessary training and knowledge	1h	<ul style="list-style-type: none"> ▪ Additional cost to pool barrier builders of training and assessment. ▪ Fewer non-compliant pool fences installed leading to either: <ul style="list-style-type: none"> – fewer follow-up visits for certifiers; or – potential safety benefits.
Change to the treatment of portable pools and spas	3a, 3b and 8e	<ul style="list-style-type: none"> ▪ Given the high cost of pool fencing, relative to the cost of many portable pools, it is likely that additional enforcement measures will discourage consumers from purchasing portable pools, rather than encouraging additional compliance. <ul style="list-style-type: none"> – The main cost is the lost enjoyment (consumer surplus) from use of the pool. ▪ Cost of training retail staff. ▪ Safety benefits.
Education/public awareness		<ul style="list-style-type: none"> ▪ Cost to Government. ▪ Potentially better safety outcomes.

a

Note:

Source: The CIE.

Although the Lambert Review's regulatory recommendations could be expected to deliver some safety benefits, these benefits are far outweighed by the associated costs (table 4.4). These costs are mostly borne by pool owners, through the capital costs associated with upgrading to a new pool fence that complies with the current standard and the cost of additional inspections (we assume these costs are passed onto pool owners). These conclusions

4.4 Estimated impact of Option 3

	4 per cent discount rate	7 per cent discount rate	10 per cent discount rate
	\$ million	\$ million	\$ million
Community safety	382.74	272.20	204.17
Pool owners	- 1 143.76	- 1 080.31	- 1 028.65
Pool certifiers	- 7.34	- 5.49	- 4.35
Pool builders/installers	- 1.95	- 1.81	- 1.73
Councils	- 3.22	- 2.70	- 2.38
State Government	- 2.43	- 2.29	- 2.20
Total	- 775.96	- 820.40	- 835.13

Source: CIE, *Review of swimming pool fence requirements: Cost-benefit analysis*, August 2016.

These estimates do not contain the impacts of a public information/education campaign.

Option 4: Public information/education campaign

The costs and benefits of a public information/education campaign could not be quantified. Nevertheless, discussions with water safety experts reinforced that human behaviour is a key element in many drowning deaths and that a combination of information campaigns to influence human behaviour and regulation are important.

Potential benefits

The implication is that there may be an opportunity to achieve better safety outcomes through influencing the behaviour of pool owners. This includes their behaviour in relation to both their regulatory responsibilities (maintenance of the pool fence etc.) and in relation to supervision of children around backyard swimming pools.

Over the period 1 November 2015 to 31 May 2016, the Royal Life Saving Society Australia ran the *Be Pool Safe* campaign in NSW. This campaign drew on \$100 000 of NSW Government funding and was able to generate 4273 Australian media reports discussing the campaign, with a cumulative potential audience/circulation of 41 million, across advertising space that would otherwise be worth approximately \$5.6 million.¹⁰

The advertising campaign targeted the join messages of:

- Parental/carer active supervision
- Gate and fence maintenance

As the *Be Pool Safe* campaign finished only recently, it is not possible to measure the potential change in pool safety incidents that may have been driven by the campaign.

However, it is possible to demonstrate the potentially high benefit cost ratios that could be generated from a media campaign of this scale, even with reasonably small changes in behaviour and safety incidents.

For example, to cover the media campaign costs, it would be necessary that one child death be prevented every 50 years. This reflects the relatively low cost promotion activities (\$100 000), and the high economic value of a child's life (\$5.5 million).

While one child's life every 50 years does not represent sweeping changes in the behaviours of pool owners, it does represent a 0.3 per cent reduction in average annual child deaths in swimming pools in NSW. If in contrast, one child death was able to be prevented every 5 years (a 3 per cent reduction in average annual child deaths), this would represent a \$7.1 million economic benefit over 10 years, or a benefit cost ratio of 71.

As noted earlier, this potential for a high return from information and advertising campaigns for pool owners is driven by:

¹⁰ Isentia.insights (2016) Media Coverage Report, *Be Pool Safe*: 1 November 2015 – 31 May 2016, Royal Life Saving Society, p2

- the relatively low cost of information and advertising campaigns relative to more stringent regulatory approaches; and
- the ongoing and persistent nature of the opportunities for owners to change their behaviour with respect to pool safety, compared with the single and discrete point in time regulated tasks of installation and certification.

Funding

There would be a sound case to fund any advertising or other information campaign through a levy on pool owners (possibly collected with council rates) under either the ‘impactor pay’ or ‘beneficiary pays’ principles. These are broad principles often applied in the context of cost recovery arrangements.

- As pool owners create the safety risk by owning pools, they should bear the cost of pool safety awareness campaigns under the impactor pays principle.
- Similarly, the beneficiaries of better awareness of pool safety issues are most likely to be pool owners (Child Death Review Team data shows that most drownings in backyard swimming pools occur at the child’s home). Consequently, pool owners should bear the cost under the beneficiary pays principle.

With more than 330 000 registered swimming pools in NSW, a levy of 50 cents per pool owner would cover the costs of a substantial awareness campaign.

Preferred option

The costs and benefits of the regulatory reform options relative to the status quo are summarised in table 4.5. As the costs of both reform options are estimated to significantly outweigh the safety benefits and any benefits associated with a simpler regulatory framework, the status quo (Option 1) is the preferred regulatory framework.

4.5 Summary of estimated impact of regulatory options

	Option 2	Option 3
	\$ million	\$ million
Community safety	0.00	272.20
Pool owners	- 201.47	- 1 080.31
Pool certifiers	0.00	- 5.49
Pool builders/installers	0.00	- 1.81
Councils	0.00	- 2.70
State Government	0.00	- 2.29
Total	- 201.47	- 820.40

Source: CIE, *Review of swimming pool fence requirements: Cost-benefit analysis*, August 2016.

The above estimates do not include the costs and benefits of a public information/education campaign. This could include preparation of guidance material for pool owners and other stakeholders (to the extent that this is possible under the

current copyright arrangement relating to the standard), as well as a broader awareness campaign.

Although there is little available hard evidence to support the cost effectiveness of a pool safety information campaign, it is plausible that it could deliver a significant benefit and a fraction of the cost of the regulatory approaches considered above.

5 *Other matters*

Consultation

There was significant community consultation undertaken as part of the Lambert Review.

- Meetings were held with a wide range of direct stakeholders, including a significant number of councils, industry groups and water safety experts.
- In addition, a Discussion Paper was prepared and members of the community were invited to provide comment.
- There was also an accompanying online survey.

Additional consultation for the preparation of this BRS has been limited to discussions with a small number of industry stakeholders, primarily to obtain information to estimate the relevant costs and benefits.

Evaluation and review

The overall aim of an information campaign would be to reduce the number of child drownings and near drownings in backyard swimming pools. With data on the number of drownings readily available, the impacts could easily be monitored for effectiveness. Under the reporting recommendations of the Lambert Review, better information on near drownings would also be available.

If the information campaign included an advertising component, this would be subject to NSW Government requirements set out in the NSW Government Advertising Handbook. Under this framework, a compliance certificate and peer review would be required for advertising campaigns over \$50 000 (likely). Additional requirements, including a cost-benefit analysis would be required for an advertising campaign over \$1 million (unlikely).