



Accessible adult change facilities in public buildings

Regulation Impact Statement for decision 2018

Accessible Adult Change Facilities in Public Buildings

**Final Regulation
Impact Statement**

September 2018

NOTICE

Ernst & Young was engaged on the instructions of the Commonwealth of Australia as represented by the Department of Industry, Innovation and Science (“the Department”) to develop a Consultation RIS (“Regulation Impact Statement”) on a proposal to include requirements in the National Construction Code for accessible adult change facilities to be provided in Class 6 shopping centres and Class 9b assembly buildings, in accordance with the engagement agreement dated 26 October 2017. Following the development of the Consultation RIS, Ernst & Young was engaged to prepare a Final RIS, in accordance with the Deed of Variation dated 23 May 2018.

The results of Ernst & Young’s work, including the assumptions and qualifications made in preparing the report, are set out in Ernst & Young’s report dated September 2018 (“Report”). The Report should be read in its entirety including the applicable scope of the work and any limitations. A reference to the Report includes any part of the Report. Our work commenced on 23 May 2018 and was completed on 5 September 2018. Therefore, our Report does not take account of events or circumstances arising after 5 September 2018 and we have no responsibility to update the Report for such events or circumstances.

The Report will be used for the purpose of assessing the need for accessible adult change facilities in public buildings as described above (the “Purpose”).

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Our Report is based, in part, on the assumptions stated and on the information provided to us by the Department, including information provided by the Department on 27 October 2017, as well as information obtained from a range of sources believed after due enquiry to be reliable and accurate. We do not imply, and it should not be construed that we have performed audit or due diligence procedures on any of the information provided to us. We have not independently verified, or accept any responsibility or liability for independently verifying, any such information nor do we make any representation as to the accuracy or completeness of the information. We accept no responsibility or liability for any loss or damage, which may result from your reliance on any research, analyses or information so supplied.

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Acronyms

Acronym	Definition
AACF	Accessible adult change facility
ABCB	Australian Building Codes Board
ABS	Australian Bureau of Statistics
AHRC	Australian Human Rights Commission
AIHW	Australian Institute of Health and Welfare
AS	Australian Standard
BCA	Building Code of Australia, Volumes One and Two of the National Construction Code
BCR	Benefit Cost Ratio
BS	British Standards
CP	Changing Places
COAG	Council of Australian Governments
CPTS	Changing Places Technical Standard
DCWC	Donald Cant Watts and Corke (Quantity Surveyors)
DDA	<i>Disability Discrimination Act 1992</i>
HHSBA	Health and Human Services Building Authority
NDIS	National Disability Insurance Scheme
NCC	National Construction Code, comprising the Building Code of Australia (BCA), Volume One and Two and the Plumbing Code of Australia (PCA) as Volume Three
NPV	Net Present Value
RIS	Regulation Impact Statement
SASF	Standard accessible sanitary facility
SDAC	Survey of Disability, Ageing and Carers
TfNSW	Transport for New South Wales
UN	United Nations
WTP	Willingness to Pay

Definitions

Definition	Meaning
Use value	Intrinsic value of visiting a building.
Utility value	The amount of utility required to break-even with the costs.

Executive summary

Introduction

In 2015-16, the Department of Industry, Innovation and Science (the Department), in consultation with the Attorney-General's Department, undertook a five year review of the *Disability (Access to Premises – Buildings) Standards 2010* (the Premises Standards).¹

The Premises Standards are made under Section 31(1) of the *Disability Discrimination Act 1992* (C'th). The requirements of Schedule 1 of the Premises Standards are reflected in the National Construction Code (NCC). The NCC is given legal effect by relevant building, plumbing and related legislation of each State and Territory.

Recommendations 6b and 6f of the Premises Standards Review relate to the provision of accessible adult change facilities (AACFs) in public buildings. Recommendation 6b recommends that the Australian Government “investigate whether, and how, accessible adult changing facilities should be included in the Standards.”²

This Final Regulation Impact Statement (Final RIS), follows the release of a Consultation Regulation Impact Statement (Consultation RIS) in March 2018 and a consultation period that received comments until the close of business on 13 April 2018. The Final and Consultation RISs have been undertaken on a proposal (this proposal) to amend those Standards and the NCC to require AACFs to be provided in:

- ▶ **Class 6 shopping centres:** Class 6 is the NCC building classification applicable to shopping centres.
- ▶ **Class 9b assembly buildings:** a building where people may assemble for civic, social, political or religious purposes; entertainment, recreation or sporting purposes (including indoor swimming pools); or transit purposes, for example a railway station or an airport.

This Final RIS considers comments provided in response to the Consultation RIS and updates the economic and social impacts of a range of options that address the problem as described. The approach is consistent with the OBPR Best Practice Regulation (2007),³ Australian Government Guide to Regulation (2014)⁴ and Cost Benefit Analysis Guidance Note (2016).⁵

The scope of the analysis is threefold:

¹ Department of Industry, Innovation and Science (2016), Review of the Disability (Access to Premises—Buildings) Standards 2010. Canberra: Commonwealth of Australia, https://www.industry.gov.au/sites/g/files/net3906/ff/July%202018/document/pdf/review_of_the_disability_access_to_premises-buildings_standards_2010_report.pdf

² *ibid.*

³ Department of Prime Minister and Cabinet (2007) Best Practice Regulation: A guide for Ministerial Councils and National Standard Setting Bodies, <https://www.pmc.gov.au/resource-centre/regulation/best-practice-regulation-guide-ministerial-councils-and-national-standard-setting-bodies>

⁴ Department of Prime Minister and Cabinet, The Australian Government Guide to Regulation, <https://www.pmc.gov.au/resource-centre/regulation/australian-government-guide-regulation>

⁵ <https://www.pmc.gov.au/resource-centre/regulation/cost-benefit-analysis-guidance-note>

- ▶ First, we consider six hypothetical case studies, consisting of a major shopping centre, a smaller shopping centre, a museum, a stadium, an airport and a public aquatic facility. We qualitatively consider major public transport buildings, libraries and theatres.
- ▶ Second, we conduct an aggregate analysis estimating the whole-of-economy impacts of the proposed policy.
- ▶ Finally, we qualitatively consider those benefits which are not able to be quantified.

What is the problem?

AACFs are currently not required by NCC 2016 or the Premises Standards.

The recent Premises Standards review assessed the effectiveness of these standards and examined any barriers to the participation of people with a disability in accessing new and upgraded public buildings in Australia since May 2011.⁶

Participation of people with a disability within their communities could include social, cultural, or economic participation.

The Premises Standards review acknowledged that the biggest issue identified through the submission process was the absence of AACFs. In addition to 120 submissions forming part of the Changing Places campaign, 70 further submissions called for AACFs to be part of the Premises Standards.

This Final RIS identifies that the current provision of AACFs is insufficient to account for the needs of people with a complex disability.⁷ This is inconsistent with national and international legal frameworks, and prevents social and economic participation of occupants with complex disability in our community.

How can the problem be addressed?

This Final RIS considers three options for addressing the problem:

- ▶ **The Status Quo:** regarded as a baseline from which the incremental impacts of the proposals and alternative options will be assessed.
- ▶ **Non-Regulatory Option:** considers how stated objectives can be achieved through a non-regulatory approach.
- ▶ **Regulatory Option:** considers how stated objectives can be achieved through a regulatory approach, which would involve amending the Premises Standards and the NCC to mandate the provision of AACFs in prospective Class 6 shopping centres and

⁶ Department of Industry, Innovation and Science (2016) Review of the Disability (Access to Premises – Buildings) Standards 2010, April 2016, https://www.industry.gov.au/sites/g/files/net3906/ff/July%202018/document/pdf/review_of_the_disability_access_to_premises-buildings_standards_2010_report.pdf

⁷ Throughout this final RIS the term complex disability is used to define the range of people who have disabilities with complex support needs.

Class 9b assembly buildings. Within the regulatory option we consider three discrete options:

- ▶ Option A, which is intended as minimum necessary specification AACFs that are assumed to be co-located with standard accessible sanitary facilities (SASFs).
- ▶ Option B, which is intended as minimum necessary specification AACFs that are assumed to be a separate facility from SASFs.
- ▶ Option C, which is fully conforming Changing Places / Lift & Change specification.

Under the non-regulatory option, modelling assumes that facilities will meet the minimum necessary specifications for a co-located AACF, but that fewer overall will be constructed.

Defining the population

The population considered in this Final RIS is divided into the core and non-core cohort, and covers a broad spectrum of people with disability:

- ▶ **Core cohort:** We estimate that approximately 350,350 people in Australia live with a complex disability.⁸ These people will be considered as the core cohort. This represents an implied disability rate of 1.5% of the total Australian population.
- ▶ **Non-core cohort:** There are a range of people outside of the core cohort who will also potentially benefit from the provision of AACFs. These might include carers, non-users of the facility, and government.

Measuring the costs and benefits

For the purposes of this Final RIS, the costs and benefits are as follows:

- ▶ **Costs:** The costs of this proposal are divided into capital expenses and ongoing operating expenses associated with the installation and maintenance of an AACF.
- ▶ **Quantifiable benefits:**
 - ▶ For shopping centres, museums and stadiums, we estimate the direct (or 'use') value of an additional trip to a Class 6 shopping centre or Class 9b museum or stadium for a person with a complex disability as a result of AACFs being provided. Our analysis initially calculates the 'break-even' value of utility; the value of utility at which the estimated use values are just enough to cover the estimated capital and operating costs of an AACF for all case studies. Following that, estimates of the potential benefits that the trip may generate are applied to the same analysis in order to calculate a range of benefits that may accrue.
 - ▶ In the case of airports, the analysis focussed on a range of different patronage figures from a selection of small, medium and large airports across Australia,⁹ combined with estimates of the travel propensity for people with a disability¹⁰ to

⁹ Bureau of Infrastructure, Transport and Regional Economics, <https://bitre.gov.au/statistics/aviation/>

¹⁰ Dwyer, L. Darcy S. (2008) The Economic Contribution of Accessible Tourism to the Australian Economy (p.27)

provide an indication of the benefit per trip that would be required in order for the installation of an AACF to be justified from a cost-benefit perspective.

- ▶ For public aquatic facilities, estimates of the therapeutic benefits of hydrotherapy were combined with assumptions regarding the frequency of use of the facility, in order to generate estimates of the whole-of-economy benefits from extending the requirement to these facilities, as well as an estimate of the 'break-even' feeder population; the amount of benefit that would be required on a per trip basis in order to just cover the estimated capital and operating costs of installing an AACF.
- ▶ For major public transport buildings, a variety of factors led to a recommendation of AACFs not being mandated for installation in prospective train stations. This recommendation should not be interpreted as a suggestion that the potential benefits of greater public transport accessibility are unimportant; merely that the installation of an AACF is not considered to be the best catalyst for the realisation of those benefits. The reasons for this are described in Section 7.1.2.
- ▶ **Qualitative benefits:** in addition to the usage values described above, the provision of AACFs has the potential to deliver a variety of long-term benefits for a person with a disability and their carers. The expected benefits are numerous and include improved quality of life, improved community and social participation, and improved wellbeing and mental health outcomes. These benefits are considered qualitatively throughout this report drawing on feedback from those impacted by the problem.

Quantitative results

The estimated net benefits and costs from a whole-of-economy perspective of mandating the installation of AACFs in the quantifiable cases are presented in the table below. It is worth noting that, as will be discussed at length throughout this Final RIS, the benefits quantified relate only to the value of individual trips made to the respective buildings. They do not capture longer term benefits such as improved psychological health or social equality. The quantified benefits in all likelihood, represent only a fraction of the total benefits.

Notwithstanding the limitations, a few key points can be made with respect to the findings below:

- ▶ First, it is clear that the benefits are more pronounced for shopping centres than for other buildings. This reflects the far greater usage of shopping centres - a shopping centre is more of a 'day to day' like venue, whereas museums, stadiums and swimming pools tend to be attended less frequently.
- ▶ Public aquatic facilities generate the next highest benefits in an overall sense, which reflects the potentially considerable benefits gained from hydrotherapy and immersion in water for people with disability.
- ▶ Extending the requirements to museums with a design occupancy exceeding 1,500 and stadiums with a design occupancy exceeding 35,000 is estimated to generate small net benefits.

Table 0-1: Illustrative whole-of-economy impacts – Net Present Value (Regulatory Option A)

Building Type	PV Benefits	PV Costs	Net Benefits	Benefit Cost Ratio
Shopping Centres (>10,000 sqm)	\$163,747,755	\$9,113,399	\$154,634,356	18.0
Museums	\$4,017,786	\$1,306,110	\$2,711,676	3.1
Stadiums	\$4,209,345	\$996,768	\$3,212,577	4.2
Public Aquatic Facilities	\$22,226,290	\$6,049,351	\$16,176,940	3.7
Total	\$194,201,176	\$17,465,628	\$176,735,548	11.1

Notes:

1. Present Values have been calculated over a ten year period for both costs and benefits using a real discount rate of 7%.¹¹
2. The findings above should be read in conjunction with the assumptions detailed in Appendix A.
3. Whole-of-economy impacts are derived by multiplying the estimated benefits per trip and break-even points from the case studies by the assumed number of buildings of each type expected to be developed over the next 10 years

Qualitative Results

Based on in-depth consultations and stakeholder feedback, the qualitative benefits that might result from the provision of AACFs being mandated in selected buildings are listed in Table 0-2.

Table 0-2: Summary of qualitative benefits

Group	Short term benefits	Long term benefits
Person with a disability	<ul style="list-style-type: none"> ▶ Toileting needs are met and equal access to facilities is provided. ▶ Longer attendance at Class 6 shopping centres or Class 9b assembly buildings. ▶ Increased dignity. ▶ Reduced social isolation and increased social cohesion. ▶ Reduced stress and anxiety. ▶ Psychological benefits for people with a disability from outings. ▶ Enables an increase in discretionary time. 	<ul style="list-style-type: none"> ▶ Improved quality of life, wellbeing and mental health outcomes. ▶ Improved community inclusion. ▶ Improved social participation. ▶ Increased opportunities to engage with the workforce. ▶ Reduced reliance on social welfare and / or insurance. ▶ Greater personal freedom and empowerment.
Carer	<ul style="list-style-type: none"> ▶ Reduced stress and anxiety. ▶ Reduced need to change person with a complex disability in unsuitable environments. ▶ Longer attendance at Class 6 shopping centres or Class 9b assembly buildings. 	<ul style="list-style-type: none"> ▶ Reduced stress from caring for person with a disability. ▶ Improved quality of life, wellbeing and mental health outcomes for informal carers.

¹¹ OBPR (2016) Cost Benefit Analysis Guidance Note
Department of Industry, Innovation and Science
Accessible adult change facilities in public buildings

Group	Short term benefits	Long term benefits
	<ul style="list-style-type: none"> ▶ Improved social inclusion and inclusion in daily life / family activities for informal carers leading to reduced isolation. ▶ Reduced potential for injury in assisting person with a complex disability with their toileting needs. ▶ Enables an increase in discretionary time. 	<ul style="list-style-type: none"> ▶ Improved social participation for informal carers. ▶ Opportunity to increase employment participation.
Society	<ul style="list-style-type: none"> ▶ Increased awareness of the special needs and challenges associated with living with a complex disability. ▶ Extension of benefits to people outside of the core cohort who nevertheless might benefit from AACFs including the elderly or people using wheelchairs, mobility scooters, etc. ▶ Promotes acceptance within the community of the principle that persons with disabilities have the same fundamental rights as the rest of the community. 	<ul style="list-style-type: none"> ▶ Better inclusivity and awareness in society. ▶ Reduced health system costs. ▶ Increased engagement in human rights and social impact. ▶ More equitable society. ▶ Needs of those with progressive diseases / disorders addressed. ▶ Tourism dollars increase due to availability of suitable facilities. ▶ Increased productivity by enabling greater employment participation by both people with a disability and their carers. ▶ Enables greater consumption and an increase in the taxation base. ▶ Potentially decreasing social welfare expenditure.

Recommendations

The findings of this report support the following amendments to the National Construction Code in respect of Class 6 shopping centres and Class 9b public buildings:

- ▶ The installation of an AACF is required for all new shopping centres or redevelopments with a design occupancy greater than 3,500.
- ▶ The installation of an AACF is required for all new museums or redevelopments with a design occupancy greater than 1,500.
- ▶ The installation of an AACF is required for all new theatres or redevelopments with a design occupancy greater than 1,500.
- ▶ The installation of an AACF is required for all new stadiums or redevelopments with a design occupancy greater than 35,000.
- ▶ The installation of an AACF is required for all new indoor aquatic facilities where the main swimming pool area's perimeter exceeds 70m (typically sufficient to capture a 25m swimming pool and above).
- ▶ The installation of an AACF is required for all new airports or airport redevelopments.

Themes of consultation responses

Following the release of the Consultation RIS stakeholders were invited to provide their feedback from the period 1 March 2018 to 12 April 2018. Stakeholders were asked not only to provide answers to specific consultation questions (refer Appendix E), but to also provide general feedback and commentary in relation to the problem and analysis described throughout the Consultation RIS.

Approximately 70 submissions were received from a range of government agencies, industry bodies, special interest groups, people with disability and carers.

Throughout this Final RIS, specific consultation questions, along with stakeholders' commentary against those questions, are provided in grey call out boxes in the relevant sections of the report. The intent is that the document can be read without reference to the call out boxes, with the latter being provided so as to enable the reader to easily identify the views of stakeholders against specific questions.

The below themes were often present across responses to multiple consultation questions. It is acknowledged the frequency of their discussion may be influenced by the purpose and function of organisations that submitted responses. The themes are presented in alphabetical order.

Accessibility and existing utilisation

- ▶ The operational costs attributed to AACFs in public transport buildings are considered to significantly increase due to vandalism and misuse when accessibility is not restricted.
- ▶ Existing utilisation estimates of AACFs in public transport buildings indicate that notwithstanding awareness of facilities and other factors, usage of existing facilities is low, with the AACF at Flinders Street Station in Melbourne being used on average only three times per day.

Equity in assessment and delivery

- ▶ The provision of AACFs in public buildings was often noted as a social justice or human rights issue with qualitative dignity, wellbeing, disability awareness and discrimination reduction benefits commonly noted as superseding the results of economic analysis.
- ▶ Provision of AACFs in regional, rural and remote areas was often considered an area in need of further consideration in the future.

Feasibility of introducing AACFs to rail stations

- ▶ Infrastructure, space, cost and operational constraints were commonly noted when discussing the feasibility of introducing AACFs to rail stations.
- ▶ It was also commented that usage of existing facilities is quite low, and that public transport buildings are transitory destinations, not destinations in their own right.

Inclusive features

Peninsula toilets as specified in the Changing Places design were noted by some stakeholders as exclusionary to large numbers of people with a disability.

1. Introduction

The *Disability (Access to Premises – Buildings) Standards 2010* ('Premises Standards') have been subject to a five yearly review that commenced in 2015 and was completed in May 2016. The review was undertaken by the Commonwealth Department of Industry, Innovation and Science (the Department) in consultation with the Attorney-General's Department, with input provided by the Australian Building Codes Board (ABCB). A copy of the report can be found on the Department's website.¹²

The Premises Standards are made under Section 31(1) of the *Disability Discrimination Act 1992* (C'th). The requirements of Schedule 1 of the Premises Standards are reflected in the National Construction Code (NCC). The NCC is given legal effect by relevant building, plumbing and related legislation in each State and Territory.

Recommendations 6b and 6f of the Premises Standards review relate to the provision of accessible adult change facilities (AACFs) in public buildings. It recommends that the Australian Government "investigate whether, and how, accessible adult changing facilities should be included in the Standards."¹³

At the Building Ministers' Forum held in April 2017, Building Ministers agreed that a Regulation Impact Statement (RIS) be undertaken to consider expanding the NCC to include requirements for AACFs to be provided for people with complex disabilities.¹⁴

EY was engaged by the ABCB to prepare a Consultation Regulation Impact Statement (Consultation RIS), and has subsequently been engaged to prepare this Final Regulation Impact Statement (Final RIS), to conduct an estimation of the benefits and costs of including AACFs in the Premises Standards and the NCC.

This RIS examines the extent to which a problem exists that might appropriately be addressed through regulatory action. The problem under examination is that the provision of AACFs is insufficient to cater for the needs of the population, and that this insufficiency potentially places new buildings constructed in Australia at odds with national and international legal frameworks regarding accessibility for people with a disability.

1.1 Current NCC Requirements

The Premises Standards require that sanitary facilities be provided in buildings, appropriate to the building's use, the number and gender of its occupants, and the disability and other needs of those occupants.¹⁵ This requirement is reflected in the NCC as Performance Requirement FP2.1. Both the Premises Standards (Schedule 1) and the NCC are performance-based, meaning that they are formulated as a series of mandatory

¹² See: <https://www.industry.gov.au/data-and-publications/review-of-the-disability-access-to-premises-buildings-standards-2010-premises>

¹³ Department of Industry, Innovation and Science (2016), *Review of the Disability (Access to Premises—Buildings) Standards 2010*. Canberra: Commonwealth of Australia. p 22.

¹⁴ Building Ministers Forum, *Communique*, 21 April 2017,

https://www.industry.gov.au/sites/g/files/net3906/f/July%202018/document/pdf/building_ministers_forum_communique_-_april-2018.pdf

¹⁵ *Disability (Access to Premises—Buildings) Standards 2010*, sch 1, cl FP2.1.

Performance Requirements along with a set of corresponding, optional Deemed-to-Satisfy (DtS) Provisions.

Performance Requirements are high level statements that describe what a building must achieve. DtS Provisions are prescriptive, technical specifications that may be complied with as one way to meet the Performance Requirements. Solutions outside of those prescribed in the DtS Provisions are also acceptable on the condition that they can be demonstrated to be able to meet the Performance Requirements.

The current DtS Provisions for Class 6 shopping centres and Class 9b assembly buildings require at least one accessible sanitary facility on each storey where standard sanitary facilities are required; where a storey contains multiple banks of toilets, at least half must also include an accessible facility. The DtS Provisions require accessible sanitary facilities to be designed in accordance with AS 1428.1, which does not include specifications for accessible adult changing equipment.

Current Premises Standards Requirements

The specifications for the construction of accessible sanitary facilities are included in the Premises Standards through reference to the Australian Standard *AS 1428.1:2009 – Design for access and mobility – Part 1: General requirements for access – New building work (AS 1428.1-2009)*.¹⁶

The introduction of the Premises Standards and corresponding provisions in the NCC significantly increased the number of accessible facilities required. By referencing AS 1428.1-2009 the Premises Standards also increased the dimensions of accessible facilities to meet the 90th percentile wheelchair dimensions.¹⁷

The consultation process for the Premises Standards review asked respondents whether there were any issues regarding the requirements for accessible sanitary facilities which should be addressed.¹⁸ The majority of respondents felt that the lack of AACFs in public buildings was inequitable because people with more complex disabilities are unable to use existing accessible sanitary facilities. A lack of suitable facilities results in undignified, often unhygienic alternatives, many reporting having to resort to using the floor of a sanitary compartment (refer Section 1.4 for the definition of AACF).

1.2 Defining the purpose of the analysis

The purpose of this Final RIS is twofold. First, it is to establish the extent to which a problem exists that might appropriately be addressed through regulatory action and having established that there is a problem, to examine alternative options for rectifying the problem, taking account of stakeholder comments received in the Consultation RIS and

¹⁶ https://www.industry.gov.au/sites/g/files/net3906/f/July%202018/document/pdf/review_of_the_disability_access_to_premises-buildings_standards_2010_report.pdf, p22.

¹⁷ Ibid.

¹⁸ Department of Industry, Innovation and Science (2016) Review of the Premises Standards – Published Responses, https://www.industry.gov.au/sites/g/files/net3906/f/July%202018/document/extra/review-of_the_disability_access_to_premises_-_buildings_standards_2010_government_response.pdf

the economic and social impacts of the options under examination. The specific options examined in this RIS are described in Section 4.

1.3 Structure of this report

The structure of this report is set out as follows:

Section 2 defines the problem this Final RIS is seeking to address, in particular that the current provision of AACFs is insufficient to account for the needs of people with a complex disability. This is inconsistent with national and international legal frameworks and creates considerable impacts at an economic and societal level.

Section 3 describes the objectives of the proposed regulatory change.

Section 4 explores options for how the problem can be addressed. These options include the status quo, a non-regulatory option and the regulatory option. This section also looks at the objectives of the proposed policy change.

Section 5 defines the population of users whom we believe stand to benefit the most from a greater provision of AACFs. It includes a bottom up analysis of the population, a cross reference with other estimates and approaches, and identifies the limitations of our analysis.

Section 6 provides a description of the costs (including capital expenses, ongoing operating expenses, regulatory burden costs and other costs) and benefits (including both quantifiable and qualitative benefits).

Section 7 details the impact of the proposed options.

Section 8 summarises what the results mean for policy makers and discusses some high level implementation considerations.

Section 9 sets out the conclusions of this Final RIS.

1.4 What are accessible adult change facilities?

1.4.1 General description

AACFs are essentially sanitary facilities with additional features that provide amenity and assist people with more profound or complex disability who are unable to use standard accessible facilities independently. Such features may include an adult-sized change table, hoist, larger circulation spaces and a 'peninsula-type' toilet.¹⁹

1.4.2 Changing Places

A 'Changing Places' facility is an accessible sanitary facility that is designed and accredited according to the Changing Places Technical Standard (CPTS) which is one

¹⁹ A 'peninsula-type' toilet is one where there is at least 900 mm clear space either side of the edge of the pan as required by Changing Places, with drop-down rather than fixed grab-rails to support the user. This differs from AS 1428.1, which requires one side of the pan to be no more than 460 mm from the wall (measured from the centre-line of the pan).

model for the design of AACFs.²⁰ As a condition of accreditation, Changing Places facilities must be provided in addition to, and separate from, standard accessible sanitary facilities.

Changing Places facilities provide additional specifications to those listed above for a general AACF. The Changing Places specifications include:

- ▶ A height adjustable adult-sized bench
- ▶ A tracking hoist system, or mobile hoist if this is not possible
- ▶ Adequate space in the changing area for the person and up to two carers
- ▶ A centrally placed toilet with room either side
- ▶ A screen or curtain to allow some privacy
- ▶ Wide tear off paper roll to cover the bench
- ▶ A large waste bin for disposable pads
- ▶ A non-slip floor.²¹

Changing Places was first established in the United Kingdom and is currently led by a consortium of organisations working to support the rights of people with profound and multiple learning disabilities and / or other physical disabilities. The consortium campaigns for Changing Places to be installed in all large public spaces.²²

1.4.3 Lift & Change

Lift & Change facilities are required to comply with the New South Wales (NSW) Lift and Change Facilities Master Checklist.²³ Technically, the Checklist is consistent with the CPTS mentioned above. It is also consistent with the CPTS requirement for an additional standard (i.e. AS 1428.1 compliant) accessible sanitary facility to be provided nearby each Lift & Change facility; this is to ensure that a facility remains available for people who require a standard accessible sanitary facility.²⁴

1.5 Overview of approach

1.5.1 Options considered

The Consultation RIS considered two broad types of AACF for the analysis:

- ▶ Option A as a minimum necessary specification.
- ▶ Option B as fully conforming to all the Changing Places / Lift & Change specifications.

The Final RIS has been amended to reflect stakeholder advice and now incorporates three regulatory sub-options:

- ▶ Option A, which is intended as minimum necessary specification AACFs that are assumed to be co-located with SASFs.

²⁰ Association for Children with a Disability (ACD). *Changing Places Transforming Lives – Information Guide and Technical Standard*. Melbourne, Vic: ACD. June 2017.

²¹ Changing Places, What are Changing Places Toilets?

http://www.changingplaces.org/the_campaign/what_are_changing_places_toilets.aspx

²² Changing Places UK, http://www.changing-places.org/about_us.aspx

²³ Local Government New South Wales (LGNSW), *Lift & Change Facilities Master Checklist*. 2017. p 5.

²⁴ *Ibid*.

- ▶ Option B, which is intended as minimum necessary specification AACFs that are assumed to be a separate facility from SASFs.
- ▶ Option C, which is fully conforming Changing Places / Lift & Change specification.

As will be discussed in Section 7.2, stakeholder comments revealed a range of potential downsides to Options B and C. This, combined with their considerably higher costs relative to Option A, leads to Option A being assessed as the preferred option.

1.5.2 Coverage of this analysis

Not all types of Class 9b assembly buildings have been considered in this Final RIS because some are outside the scope of the proposal; others have been assessed qualitatively only due to a lack of data.

The approach taken for each different type of Class 9b assembly building within scope is outlined as follows:

- ▶ Stadiums, museums, airports and public aquatic facilities have been quantitatively assessed.
- ▶ Bus stations, railway stations, and ferry terminals (public transport buildings) are considered quantitatively to the extent possible, noting research regarding barriers to use and that there is no clear, reliable way of delineating between 'major' and other public transport hubs.
- ▶ Cinemas are assumed to be located within shopping centres and therefore considered as part of the analysis for shopping centres.
- ▶ Libraries, theatres and public halls are considered qualitatively.

The following building types have not been considered as part of this analysis:

Schools, pre-schools and early childhood centres, places of worship, buildings used for political purposes and discotheques, nightclubs and bars have been excluded due to being outside of the scope of the relevant recommendation of the Premises Standards review.

Consultation Question

- ▶ Is the selection of the types of Class 9b assembly buildings considered appropriate?

Stakeholder feedback

Class 6 shopping centres and Class 9b assembly buildings within the scope of the proposal were generally considered appropriate.

Buildings that function as transport nodes such as railways stations and airports attracted the most discussion.

Divergent perspectives regarding the need for AACFs in transport buildings other than airports were common. This is thought to be due to their high ‘throughput’ and the relatively low average time spent in the building. Transport for New South Wales (TfNSW) noted:

“Unlike other Class 9b assembly buildings, transport buildings are transitory environments that people pass through to reach destinations, not destinations in their own right ... TfNSW acknowledges that there may be customer benefits from installing adult changing places facilities in strategically located high patronage public facilities. However, a general requirement would impose a requirement greatly in excess of the public demand for such services.”

The Australasian Railway Association supported this position and also noted further complications with the inclusion of new train stations or transport buildings:

“Currently, each passenger rail operator classifies its train stations differently. Although this predominantly links to similar elements; patronage, location etc., there is no consistent means of classifying train stations around Australia. It would be an overstatement of demand for AACFs to impose a requirement for AACFs to be included in all new train stations.”

As demonstrated above, for railway stations that function as public transport nodes, multiple responses noted this transitory nature as reasoning for excluding them from selection, while a number of disability advocates noted the provision of AACFs at these facilities would increase accessibility for people with complex disability to destinations across transport networks. A disability advocate stated:

“... it is essential to ensure airports, train stations, bus stations, bus terminals are also included in the type of 9b assembly buildings being considered. Travelling can be a stressful time for any individual but it is extremely stressful when there is no change facility available for the profoundly disabled person. People with disabilities like to travel and to use public transport where possible.”

General alignment of this view was expressed by the Victorian Health and Human Services Building Authority (Victorian HHSBA) which noted:

“Public transport buildings – should include major train stations (called premium stations in Victoria), major bus interchanges and all major passenger airports.”

A number of other responses considered that other buildings such as major public and private hospitals, cinemas, major school and university campuses, buildings that provide sporting activities for people who use a wheelchair, and buildings that are specifically

visited because they provide facilities, such as Visitor Information Centres and Highway Service Centres should also be included.

An example of these responses which discussed other buildings is the Victorian HHSB which noted:

“We support the regulatory option to mandate Class 6 shopping centres and Class 9b buildings. Our preference is for option B fully conforming to all Changing Places specifications. Victoria also recommended that Class 9a buildings, major public and private hospitals and major campuses of schools and universities where the capacity is 2,000 or greater (students and staff) should also be included.”

It is important to note that while the question referred to the selection of buildings for analysis, most responses referred to selection of buildings for exclusion from the requirement to install an AACF. Of those responses that did refer to the selection of buildings for analysis, the types of Class 9b assembly buildings considered was generally considered appropriate in addressing the defined problem of a shortage of AACFs in public buildings. The selection of types of Class 9b assembly buildings also supports the relevant recommendations of the Premises Standards review and was considered appropriate by most stakeholders.

Of the responses that referred to the selection of buildings for exclusion from the requirements to install an AACF, the majority were concerned with the inclusion of transport buildings, specifically train stations and airports.

1.5.3 Modelling

While the following chapters discuss quantifiable benefits, it is critical to note that those benefits are just one component of a broader range of benefits. Benefits such as improved quality of life or increased equality for people with a complex disability, for example, are inherently difficult to quantify, and yet were commonly noted by many stakeholders as more relevant to the consideration of this proposal than the quantified benefits.

With that in mind, the scope of this analysis is threefold.

- ▶ First, six hypothetical quantitative, and two hypothetical qualitative, case studies were considered, which are similar to existing buildings but not tied to any known development project.
- ▶ Second, an aggregate analysis estimating the whole-of-economy costs and benefits of the proposed policy change for prospective investments was conducted.
- ▶ Finally, qualitative aspects of those benefits which were not able to be quantified were considered.

1.5.4 Case study analysis

Given the uncertainties involved with estimating the potential development pipeline of public buildings over the coming years, a large part of the analysis is around hypothetical case studies.

These case studies have been devised so as to be recognisable as examples of common types of developments within each of the building classes that would be affected by the proposed change. While they refer to developments with a common use, it is acknowledged each development may contain multiple structures.

In consultation with the ABCB, six case studies were selected for quantification:

- ▶ A major shopping centre.
- ▶ A medium sized shopping centre.
- ▶ A stadium with a capacity of 35,000 people.
- ▶ A medium sized museum or cultural facility.
- ▶ An airport with terminal buildings that offers passenger services.
- ▶ A public aquatic facility.

Further, the following uses were considered qualitatively:

- ▶ A major public transport building such as a bus or ferry terminal, or a major train station.
- ▶ Libraries, theatres and public halls.

These case studies have been selected as they provide the broadest overview of Class 6 shopping centres and Class 9b assembly buildings, are representative of stakeholder feedback, and produce the biggest variability in results. An overview of the case studies and their key characteristics is provided in the following sections.

Case Study 1 – ‘Major’ shopping centre (Class 6)

The 'major' shopping centre case study is based on a shopping centre that has a lettable floor area of at least 130,000m².

Case Study 2 – ‘Medium’ shopping centre (Class 6)

The 'medium' shopping centre case study is based on a shopping centre that has a lettable floor area of at least 45,000m².

Through desktop research of the websites of major shopping centres (and shopping centre groups such as Westfield, Stockland and the Queensland Investment Corporation), a comprehensive database of over 100 shopping centres Australia wide was developed, complete with number of shops, total lettable area, and annual visitation data.

The shopping centre case studies have been selected to be reflective of one major and one medium sized shopping centre. Key parameters for the case study, such as estimated floor space and implied visitation, were obtained by analysing this database. Further detail is provided in Appendix A.

Case Study 3 – ‘Major’ Stadium (Class 9b)

The stadium case study is based on a stadium with a seating capacity of at least 35,000 people. This is assumed to be the minimum number for a stadium to be considered 'major'. Stadium capacity is based on the expected capacity of known stadium developments in the coming ten years.

Case Study 4 – ‘Medium’ sized museum/cultural centre (Class 9b)

This case study is based on a museum, cultural centre or similar which has annual visitation of at least 1,000,000 people. This is based on publicly available visitation data from the websites of 13 major museums around Australia.²⁵

Case Study 5 – An airport with terminal buildings that offers passenger services (Class 9b)

This case study is based on an airport with terminal buildings that offers domestic or international passenger services. The case study models the benefits that would be required under a range of different passenger assumptions, based on patronage data from small, medium and large airports around Australia.²⁶

Case Study 6 – A public aquatic facility (Class 9b)

This case study is based on an average of Australia’s public aquatic facilities, with an assumed \$26.39 worth of improved health outcomes per visit and an average of 4.4 visits per person per annum.²⁷

Qualitative case studies

- ▶ Public transport buildings are considered qualitatively based on stakeholder feedback and insights from the Survey of Disability, Ageing and Carers into the patronage of public transport by people with a disability.
- ▶ The Consultation RIS considered art galleries, libraries, theatres and public halls under the broad term “museum”. Since the Consultation RIS, libraries, theatres and public halls have been considered separately due to their varying uses. While these buildings are now considered qualitatively in this Final RIS, the term museum is still considered an archetype for art galleries and the like.

Consultation question

- ▶ Do you consider that the case studies selected are representative of the types of buildings likely to be constructed over the next 10 years?

Stakeholder feedback

While the case studies selected were generally considered appropriate for urban areas, some responses noted that they were not necessarily representative of the buildings likely to be constructed over the next 10 years in regional and rural areas. This view was supported by Shoalhaven City Council which stated:

²⁵ Including the national Museum of Australia, the National gallery of Australia, the National Portrait Gallery, the Art Gallery of New South Wales, the Australian Museum, the Museum of Contemporary Art in Sydney, the National Gallery of Victoria, the Western Australian Museum, the Museum and Art Gallery of the Northern Territory, the South Australian Museum, the Tasmanian Museum and Art Gallery, the Queensland Gallery of Modern Art, and the Queensland Museum.

²⁶ Bureau of Infrastructure, Transport and Regional Economics, <https://bitre.gov.au/statistics/aviation/>

²⁷ Barnsley, P. Peden, A. Scarr, J. (2017) Economic Benefits of Australia’s Public Aquatic Facilities, Royal Life Saving Society – Australia, Sydney.

“It is considered that the case studies selected are partially representative of the type of buildings likely to be constructed over the next 10 years ... the buildings selected are not representative of buildings found in regional and remote areas.”

The position that selected case studies could be more representative of regional, rural and remote environments is supported in principle. It is noted that the proposal relates exclusively to Class 6 and Class 9b buildings, the prevalence of which are closely correlated to population density. While this scope results in an intrinsic bias towards more populated areas, it is location agnostic and it does not exclude regional, rural or remote areas.

1.5.5 Whole-of-economy analysis

While it is important to derive some estimate of the whole-of-economy impacts of a prospective regulatory change, there are difficulties associated with estimating the development pipeline. In particular:

- ▶ There is no complete data set available that presents the extent of relevant buildings to be constructed. Furthermore, future large scale developments of shopping centres, stadiums and museums are infrequent, compared to other building classes meaning the results are influenced by the known small development pipeline.
- ▶ The scale (and location) of the prospective benefits is dependent on the number and type of buildings being constructed.
- ▶ There will likely be an element of diminishing marginal returns: given that many of the benefits to be calculated are dependent on scale, as more and more buildings begin to install AACFs, the additional quantitative benefits from each additional facility could be expected to diminish (but not diminish entirely).

With these limitations in mind, the aggregate quantitative figures presented in this Final RIS are best considered illustrative.

1.5.6 Consultations

Core cohort consultation

Initial consultation undertaken by EY Sweeney used a series of in-depth interviews with a small, representative group of potential end users and their carers. This consultation phase was not designed to be statistically representative, but to obtain lived experience insights from parties directly impacted by the problem.

The information collected through the consultation process was analysed to identify key themes, determine consistencies between the different cohort groups, as well as key points of difference. The information was also explored through a series of lenses, including:

- ▶ The need for, and the suitability and availability of, AACFs.
- ▶ Benefits and challenges associated with AACFs.
- ▶ Minimum standards and legislative requirements.
- ▶ Discrimination and community participation.

The intent of the information collected through the qualitative research component was to ensure that the voice of the end user, along with their thoughts, ideas, experiences and perceptions are incorporated as a key consideration in this Final RIS.

Throughout the remainder of this Final RIS, insights from the consultation undertaken by EY Sweeney are highlighted in yellow text boxes where relevant to the in-text discussion. All insights and associated quotations are anonymised so that no individual participant can be identified.

Public consultation

Following the release of the Consultation RIS, comments were sought from interested parties for a period of six weeks. This Final RIS incorporates and summarises the comments received during the public consultation period, and presents our conclusions based on the analysis and the views of all those who provided feedback during the consultation period.

1.5.7 Limitations

The estimated benefits are just one small proportion of the potential total benefits of the proposed inclusion of AACFs in the Premises Standards and the NCC.

What we have quantified is the relatively small component of overall benefits that might be deemed 'use values'; specifically, the value of trips made to Class 6 shopping centres and Class 9b assembly buildings (where sufficient data was available) as a result of the installation of AACFs.

Factors such as potential improvements to physical or mental health, quality of life, or any other psychological, physical or societal benefits have not been quantified. Feedback on the Consultation RIS from many stakeholders noted that these intangible benefits are more relevant to the consideration of the proposal than the quantified benefits and suggested that a cost-benefit framework for evaluating the problem is inappropriate based on adult change facilities being a need rather than a desire for a proportion of the population.

The qualitative analysis applies a more holistic lens to identifying potential benefits that the inclusion of AACFs in the Premises Standards and the NCC is likely to generate.

1.5.8 Matters that are out-of-scope

In line with the scope of the Premises Standards and the NCC, certain matters will fall outside the scope of what can be considered by this Final RIS. These include:

1.5.8.1 Restricting access

This Final RIS does not consider regulating to require that access to AACFs be restricted as a requirement of the Premises Standards or the NCC. This is consistent with the current approach whereby:

- ▶ There are no access restriction requirements applicable to sanitary facilities (accessible or otherwise).

- ▶ The Premises Standards and the NCC do not regulate security or property protection matters.

This limitation of scope would not prevent building owners electing to restrict access voluntarily, such as when accessible sanitary facilities, along with other facilities, are locked when the building is closed. Building owners would also be able to elect to install an MLAK system²⁸ to restrict access to an AACF even when the building is open, should they consider it necessary to do so.

However, it is important to note that restricting access to accessible sanitary facilities (including AACFs) in a way that is more onerous than for non-accessible sanitary facilities in the same building may be considered discrimination under the DDA.

1.5.8.2 Ongoing maintenance and cleaning

Ongoing maintenance and cleaning is outside the scope of the Premises Standards and NCC. This means these matters are also outside the scope of regulatory changes that can be considered in this Final RIS.

That said, the analysis has considered ongoing operating expenses, including those relating to the ongoing maintenance of facilities, devised by the Property Council of Australia in its 2017 Benchmarks Survey of Australian shopping centres. It is assumed that the operating costs for AACFs do not differ by location.

It is acknowledged that some stakeholders noted the variance in ongoing maintenance and cleaning costs depending on the building that contains an AACF. Such variances are expected to have a minor impact on the analysis and have not been considered in this modelling.

1.5.8.3 Accreditation

An AACF designed and installed according to the NCC would not be subject to any mandatory third-party accreditation requirement under the NCC (e.g. Changing Places accreditation). This is because it is outside the scope of the NCC to create administrative obligations. However, this would not preclude anyone from voluntarily seeking accreditation by a third party, as currently occurs.

²⁸ MLAK means 'Master Locksmiths' Access Key. An MLAK is a universal key which opens any MLAK configured lock, but which is only obtainable by persons with a disability (or their carer) on application, which must be signed by a medical practitioner.
Department of Industry, Innovation and Science
Accessible adult change facilities in public buildings

2. What is the problem?

The Premises Standards review acknowledged that ‘the lack of accessible sanitary facilities incorporating adult change facilities is affecting people with more complex disabilities and their ability to use sanitary facilities when out in public.’²⁹ This can limit the participation of people with complex disabilities in the social, cultural, civic, political and economic opportunities available within their communities.

Although accessible sanitary facilities are currently required by the NCC and the Premises Standards, these do not include equipment that can be used by people with more complex disabilities.³⁰

This section describes why the current level of provision of AACFs is insufficient to account for the needs of persons with a complex disability, and why the uptake of facilities is inconsistent with national and global legal frameworks, and how this creates considerable impacts at an economic and societal level.

2.1 The current provision of accessible adult change facilities

As of August 2017 there were 52 AACFs and 30 Changing Places facilities already in existence across Australia.³¹ The fundamental question underlying this Final RIS is whether or not the current provision of facilities is sufficient to enable the equitable and dignified participation of people with more complex disabilities in the community.

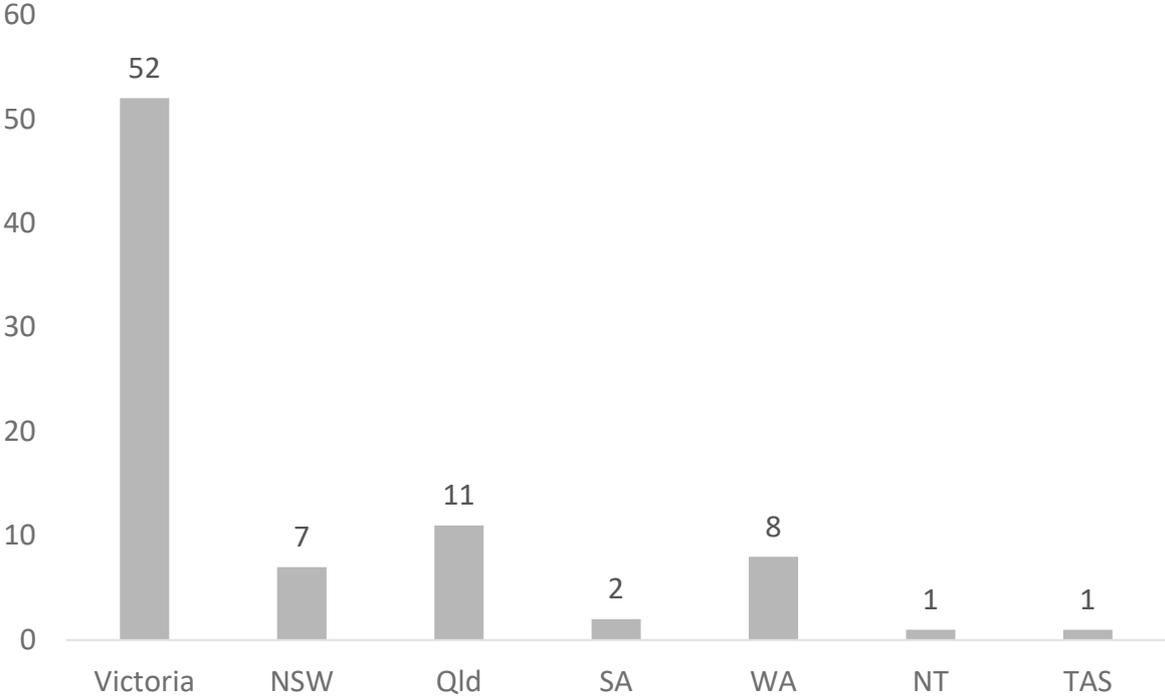
Figure 2-1 shows that the number of AACFs in each State and Territory varies, with 52 in Victoria, 11 in Queensland, eight in Western Australia, seven in NSW, two in South Australia, one in both the Northern Territory and Tasmania, and none in the ACT.

²⁹ Department of Industry, Innovation and Science (C’t’h.), *Review of the Disability (Access to Premises—Buildings) Standards 2010*. Canberra: Commonwealth of Australia, p24.

³⁰ Throughout this report the term ‘complex’ disabilities is used to mean those people expected to be in the ‘core cohort’ of beneficiaries of AACF’s, as defined in Chapter 5.

³¹ Changing Places and adult change facilities, updated August 2017, <https://www.changingplaces.org.au/wp-content/uploads/2014/08/CHANGING-PLACES-FACILITIES-LIST-AUG17.pdf>.

Figure 2-1: Number of Changing Places Facilities and AACFs as at August 2017



Source: Changing Places 2017

Although uptake is increasing, a comparison of the number of facilities with the number of people in each jurisdiction potentially in need of those facilities (the core cohort assessed in this Final RIS) indicates that the number of facilities may still be insufficient (refer Table 2-1). The core cohort is based on the definition outlined in Section 5.1, which calculates that there are 350,357 people with a disability and profoundly or severely limited in core activities who have either had difficulty accessing buildings or facilities in the last 12 months or who do not leave home.

Even in Victoria, which has more AACFs than any other jurisdiction, there are only 52 facilities for approximately 100,000 potential users State wide (refer to Figure 2-1 and Table 2-1).

Based on this information, it is clear that the provision of AACFs across the country is insufficient to account for need, particularly when compared with wheelchair accessible facilities and general public facilities which are commonplace across the country.³²

³² Refer <https://toiletmap.gov.au/Find#>
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Table 2-1: Estimated number of AACF users by jurisdiction

State / Territory	Capital city	Rest of State/Territory	Total
NSW	70,986	53,016	124,002
VIC	67,778	29,848	97,626
QLD	29,268	33,140	62,408
SA	22,025	5,908	27,933
WA	19,283	4,080	23,363
TAS	3,486	5,310	8,795
NT	-	1,751	1,751
ACT	-	4,479	4,479
Total	212,826	137,532	350,357

Source: ABS Survey of Disability, Ageing and Carers, EY estimates

Consultation questions

- ▶ Do you agree with the description of the problem given in Section 2?
- ▶ Are there any other characteristics of the problem that should be included in the analysis?

Stakeholder feedback

While most responses expressed general agreement with the definition of the problem, many qualified their agreement by noting its social and economic impacts are somewhat underestimated by the parameters of the core and non-core cohorts, and the split of quantitative and qualitative benefits. The Victorian HHSBA noted:

“We would include the lost economic benefit that arises from a large proportion of the population not being out and about and therefore not spending money.”

A number of disability advocates also noted greater definition of the problem could assist in further refining a fit-for-purpose and cost-effective design solution.

In the context of stakeholder feedback through this RIS, it is important to note both TfNSW and the Australasian Railway Association highlighted the significance of the problem:

- *“The industry recognises that there is a need to provide AACF within our communities ...”* – Australasian Railway Association
- *“Feedback from stakeholders shows that the availability of public toilets with full size change tables and hoists can make a considerable difference to people with severe and profound disability and their families and carers”* – TfNSW

Stakeholder feedback regarding use of existing facilities and discussion of the core needs these facilities address is complementary to the description of the problem detailed above. While it is agreed greater participation of the core and non-core cohorts will result in more economic activity, it is considered that this effect is best considered qualitatively. The reason for this is that it would be difficult, if not impossible, to reliably estimate the amount of spending which is truly additional – i.e. spending which would not have occurred in the absence of the AACF.

The implementation of the NDIS was noted by the Victorian HHSBA, and Australia's ageing population was noted by the Australian Human Rights Commission as factors that would significantly increase demand for AACFs over time, and increase the scale of the problem. Specifically, the Victorian HHSBA was of the view that:

“The NDIS will fund greater support to enable people with complex disabilities to engage support workers and other supports to assist them to get out and about and increase social, recreational and economic participation.”

Responses addressing a variety of other issues such as further data collection, societal awareness of the problem, the benefits to carers and exemption of public transport buildings were also received.

2.2 Obligations under national and international legal frameworks

The avoidance of discrimination against people with a disability is a basic human right that is reflected in Commonwealth legislation and international conventions, in particular the DDA and the United Nations (UN) *Convention on the Rights of People with Disability*. Both instruments are intended to prevent discrimination against people with a disability.

Feedback obtained from the Premises Standards review highlighted a clear delineation between the objectives of the frameworks below and the day to day experiences of people with a complex disability. Throughout the development of the Consultation RIS we met with people living with complex disabilities and were told of several instances where people affected by the problem believed that one or both of the below frameworks are clearly not being adhered to.

The Disability Discrimination Act (1992)

The DDA prohibits discrimination against people with disability in several areas, including the provision of access to premises.³³ It aims to influence community attitudes and behaviour through its objectives and the setting of a series of standards, including:

- ▶ To eliminate, as far as possible, discrimination against persons on the basis of their disability in a range of areas including premises used by the public.
- ▶ To ensure that, as far as practicable, persons with disability have the same rights before the law as the rest of the community.
- ▶ To promote recognition and acceptance that persons with disabilities have the same fundamental rights as the rest of the community.

The DDA is complaints based legislation, meaning that members of the community are able to make complaints where they feel the Act has not been complied with. Various complaints regarding accessibility of facilities have been made over the years, with most of these complaints resulting in the issue being rectified.³⁴ Although such cases might, on the one hand, be interpreted as evidence that the DDA is functioning as intended (by providing an outlet for people to voice their concerns), it is also likely the majority of people who are

³³ Section 23, Disability Discrimination Act 1992 (C'th). Hereafter 'Disability Discrimination Act'.

³⁴ Refer <https://www.humanrights.gov.au/complaints/conciliation-register>.

affected by a lack of accessibility do not raise such complaints. Thus, the fact that complaints are being raised could also be seen as evidence that for a large majority of people with complex disability, their accessibility needs are not being met.

United Nations Convention on the Rights of People with a Disability

Australia has international obligations under the UN Convention on the Rights of People with a Disability. Australia ratified the Convention in 2008 in an effort to promote the equal and active participation of all people with disability. In 2009, Australia became a party to the Optional Protocol to the Convention. This sets out with clarity the obligations on countries to promote, protect and ensure the rights of people with disability, and specifically prohibits discrimination against people with disability in all areas of life.

The Convention further states that signatories must take “appropriate measures to ensure persons with disabilities [have] access, on an equal basis with others, to the physical environment, and to other facilities and services open or provided to the public, both in urban and in rural areas.”

End user consultation findings

Despite the access needs and rights of people with disability being recognised in the DDA and Human Rights Convention and even the establishment of the NDIS, inequities of access for people with disability still exist.

“Especially now with the new NDIS and taking clients out more often ... it would be good to have places to go when people need to go to the toilet” (Care Group, WA).

The National Disability Insurance Scheme and an insurance approach to social welfare

While not directly related, it is worth pointing out the broader alignment between the current regulatory proposal and the overarching goal of the National Disability Insurance Scheme (NDIS). The NDIS was introduced after the Productivity Commission conducted a review in 2011 which identified considerable shortcomings of Australia’s disability support system.

An overarching premise of the NDIS is that it is operated as an insurance type system; one that focuses on improving independence through greater social and economic participation, therefore reducing long term reliance on government funded supports.

To the extent that increased social and economic participation of some of the most vulnerable members of our society will drive better outcomes, not only for people with a disability but also for people close to people with a disability, the current regulatory proposal could be seen as an important enabling factor for the ongoing success of the NDIS.

End user consultation findings

The majority of participants highlighted that the role of the NDIS is to support a better life for those with a significant and permanent disability, as well as their families and carers, and that this included supporting people to become more active participants and contributors within the community. The perception was therefore that the need for AACFs was likely to increase. Some of the key issues raised included:

- ▶ **The success of the NDIS...** will, to a large extent, be determined by the built environment. Ensuring accessibility and useability will therefore be a key influence, with the value of inaccessible buildings significantly diminishing.
- ▶ **Inaccessibility still exists...** and while some activities will simply not be possible for some people, preventing people from being engaged by not providing them with access to appropriate facilities was seen as discrimination.
- ▶ **Incidental diversity...** was believed to be critical if Australia was to become a truly inclusive society, and could only really be achieved if people with disability became more visible in the community, so that disability was “normalised”. AACFs were seen as a critical component of achieving this by simply supporting the needs of people and increasing their ability to be actively engaged and visible in the community.

“The NDIS will enable people to get out and about, which will mean the need for appropriate bathroom facilities will become an even bigger problem ... it will be a social disgrace” (CEO and lifetime wheelchair user, NSW).

2.3 The lack of accessible adult change facilities has a range of negative consequences

It is acknowledged that the implications from a lack of facilities are wide-ranging and can include health, psychological and social, and economic impacts. These impacts are discussed below.

Health impacts

An absence of AACFs provides a great challenge when going out in public for people with a complex disability and their carers. For example, consultations uncovered instances of carers delaying or tweaking medication to enable public outings. Although the necessity of such work arounds is apparent, so too are the potential unintended health impacts, for example urinary tract infection or increased digestive issues as detailed in the consultation findings below.

Another major health impact is detailed within responses from the Premises Standards review³⁵ which describe how carers have had to change their loved ones on the floor of a SASF. In addition to the obvious hygiene issues and risks of disease associated with this, there are also considerable dignity issues for people with a complex disability and their carers.

³⁵ Department of Industry, Innovation and Science (2010) Review of the Premises Standards, https://consult.industry.gov.au/premises-standards-review-team/review-of-the-premises-standards-2010/consultation/published_select_respondent
Department of Industry, Innovation and Science
Accessible adult change facilities in public buildings

End user consultation findings

Participants consistently noted that the absence of change facilities often forces them to adopt various 'work arounds' in order to get on with their daily lives. As noted above, one such 'work around' is the manual adjustment of medications, for example by withholding or adjusting prescribed timings to fit in with a schedule.

Incontinence is still considered a hidden problem and is largely regarded as a taboo subject. As such, people devise their own solutions, which can lead to a range of adverse health impacts.

"Incontinence is one of the great unspoken embarrassing things. Whether you are a middle aged woman with pelvic floor problems or a bloke struggling with his prostate, or you're a person with a disability – none of them like to talk about incontinence. You don't see a bunch of people sitting around a café comparing which incontinence products they prefer to use. So it is a really hidden problem within our community. No one talks about it. People often devise their own solutions, which often aren't best practice, so it can lead to things like increased urinary tract infections, increased digestive issues ... Incontinence in general is taboo in our community, we don't talk about it, and we don't learn the best way to manage it. And then you add that to someone who lacks the basic skills to stand up and change a pad because they can't stand up and the problem gets even worse" (CEO and lifetime wheelchair user, NSW).

Psychological and social impacts

The absence of AACFs in public places means that both those with a complex disability and their carers are often unable to access and utilise facilities that support social connectivity. This can affect the psychological development and wellbeing of both groups, and can lead to feelings of isolation and disengagement.

There is a large body of literature detailing the psychological benefits of behavioural activation, which aims to improve mental health outcomes by increasing engagement in social activities³⁶. For example, one study found that behavioural activation may be a feasible approach to tackling depression in people with intellectual disabilities.³⁷ Another study noted that although there were a number of methodological problems in studies conducted to date, behavioural activation may be effective in the treatment of depression.³⁸ In summary, the simple act of increasing participation of people with complex disabilities in social activities such as attending a shopping centre, museum or stadium, could itself generate improved mental and physical health outcomes.

³⁶ Ekers, D., Webster, L., Van Straten, A., Cuijpers, P., Richards, D., & Gilbody, S. (2014). Behavioural Activation for Depression: An Update of Meta-Analysis of Effectiveness and Sub Group Analysis. PLoS ONE, 9(6), e100100. <http://doi.org/10.1371/journal.pone.0100100>; Jahoda, A., Melville, C. A., Pert, C., Cooper, S.-A., Lynn, H., Williams, C., and Davidson, C. (2015) A feasibility study of behavioural activation for depressive symptoms in adults with intellectual disabilities. J Intellect Disability Res, 59: 1010–1021. doi: [10.1111/jir.12175](https://doi.org/10.1111/jir.12175).

³⁷ Jahoda, A., Melville, C. A., Pert, C., Cooper, S.-A., Lynn, H., Williams, C., and Davidson, C. (2015) A feasibility study of behavioural activation for depressive symptoms in adults with intellectual disabilities. J Intellect Disability Res, 59: 1010–1021. doi: [10.1111/jir.12175](https://doi.org/10.1111/jir.12175).

³⁸ Tindall, L., Mikocka-Walus, A., McMillan, D., Wright, B., Hewitt, C., Gascoyne, S. (2017) Is behavioural activation effective in the treatment of depression in young people? A systematic review and meta-analysis, <http://onlinelibrary.wiley.com/doi/10.1111/papt.12121/full>.

End user consultation findings

Participants also noted the unhygienic and undignified manner in which they are often forced to change their loved ones. Often, for example, there is no choice but to put a plastic sheet on the floor of an SASF, lifting the individual onto the plastic sheet, changing them and then lifting them back into their wheelchair, resulting in health and safety issues for individuals and their carers.

“Accessing toilets is the biggest issue when going out. While [my son] (aged 23 with cerebral palsy) has a routine, outings tend to be shorter than he would like them to be, and can be further shortened if his “routine” needs to be interrupted or altered. As with all of us, things happen.” (Mother, VIC)

Participants wanted the opportunity to live an ordinary life, with the freedom to go where they wanted to. With the overall goal of the NDIS being to enable people with disabilities to live “ordinary lives”, minimising the problems individuals and families face, and making sure that our community becomes more accessible and inclusive of people with disability is imperative.

Economic impacts

Many people with a disability have difficulties reconciling their physical needs with the rigours of daily life. For example, as noted above people often adopt ‘work arounds’ where such inconsistencies exist. In addition to the obvious health ramifications, this also clearly affects the extent to which people with a disability, as well as their carers and broader social and family networks, can participate in the broader economy to the same extent as able bodied persons.

End user consultation findings

A key theme emerging from the consultations was that the economic impacts – in terms of reduced spending and overall participation – of a lack of facilities are ‘bigger than you might think’.

For example, while the main person impacted is the person with a disability, participants consistently commented how cutting a trip short affects not only the person with a disability, but also those who are around them. In other words, it is not uncommon for a group of four or five people to all leave a shopping centre or other social activity when a change facility is needed but not available. Clearly then, while it is impossible to quantify, a lack of AACFs affects the economic participation of a far broader group than just those with a disability.

Importantly, research participants also indicated that when they find a place that works, they will keep going back (loyal repeat customers), and in fact will travel out of their way to such places. It was also clear that participants believed that having a larger “network” of places that were “good enough” was far more important than having a smaller number of places that were of the highest specification.

An important economic impact caused by the inclusion of AACFs in shopping centres and other public buildings is it will enable people requiring AACFs and their carers to visit for

longer and more frequently. Participants were of the view that they would spend more money at these businesses which will have be an economic benefit for the community.

To the extent that provision of AACFs will improve access to buildings more broadly, it is clear that, in addition to the opportunities for greater social inclusion, considerable spending benefits could result:

“Access to buildings is one of my big bug bears. I recently went to a street with high end shops in it with another client who wanted to buy a fancy dress. But we couldn’t get into any of the shops and the staff just laughed at us. My money’s as good as the next guy’s. This was not just discriminatory, but it was awful that we went all the way there and didn’t get to look at anything - my friend just cried.” (Male, 35-45 year old with spinal cord and head injuries, WA)

3. Objectives

3.1 What are the objectives of the proposed regulatory change?

The objective in addressing the need for AACFs relates to the appropriate and dignified access to suitable accessible sanitary facilities for people with a complex disability in new Class 6 shopping centres and Class 9b assembly buildings, and has the following overarching purpose:

- ▶ To ensure an appropriate level of economic and social inclusion in new buildings, for people with disability and their carers.
- ▶ To ensure that the Premises Standards and the NCC reflects the obligations expressed under the DDA and international obligations with respect to dignity, equality and independence.

4. Options for addressing the problem

There are three options for addressing the problem. These options are as follows:

- ▶ The Status Quo.
- ▶ Non-Regulatory Option.
- ▶ Regulatory Option.

4.1 The Status Quo

Under the 'status quo', or business as usual option, no change would be made to either the Premises Standards or the NCC, and no new non-regulatory initiatives would be commenced to encourage the provision of AACFs in public buildings.

Existing non-regulatory initiatives would be assumed to continue, with the number of AACFs being built continuing at the current rate, based on the information below.

In Australia, Victoria, Western Australia, South Australia, and NSW offer funding to support the construction of AACFs, as follows:

- ▶ **Victoria:** The Victorian Government provides up to \$100,000 in funding to support not-for-profit organisations and/or local government authorities to construct Changing Places facilities.³⁹ When the current funding round is complete, there will be a network of 32 Victorian Government funded Changing Places facilities state wide with a total of 52 AACFs in Victoria as of August 2017 (refer to Figure 2-1).⁴⁰
- ▶ **Western Australia:** In May 2015, the Western Australian Government committed \$2 million to support local governments to establish a network of Changing Places across the State. In January 2016, the City of Geraldton was the first local government in Western Australia to open a Changing Places facility.⁴¹
- ▶ **South Australia:** South Australia's 2017-18 Budget announced \$200,000 to fund partnerships to build five Changing Places facilities.⁴²
- ▶ **New South Wales:** NSW is running a Lift & Change Facilities Trial in partnership with local governments to promote the benefits of Lift & Change facilities, and contributing a co-contribution of up to \$35,000 to provide these facilities in local communities.
- ▶ **Queensland:** Brisbane City Council has also updated its 'Public Toilet Design Guidelines' to reflect the demand for Changing Places facilities.⁴³

³⁹ Victoria State Government, <http://www.dhs.vic.gov.au/about-the-department/plans.-programs-and-projects/projects-and-initiatives/changing-places-funding>.

⁴⁰ Victorian State Government, *Changing Places Funding Round 2017 - Funding guidelines and application form*, <https://vhhsba.vic.gov.au/sites/default/files/VHHSBA-Changing-Places-Funding-Round-2017-Guidelines.pdf>.

⁴¹ Government of Western Australia, Changing Places improving community access, <http://www.disability.wa.gov.au/individuals-families-and-carers/for-individuals-families-and-carers/recreation-and-leisure-/changing-places/>.

⁴² South Australian Treasury, https://service.sa.gov.au/cdn/statebudget/budget201718/pdfs/budget/2017-18_budget_measures_statement.pdf.

⁴³ Brisbane City Council (2013) Public Toilet Design Guidelines, December 2013, https://www.brisbane.qld.gov.au/sites/default/files/public_toilet_design_guidelines_updated.pdf.

The status quo will be regarded as a baseline from which the incremental impacts of the different options will be assessed.⁴⁴

Where the incremental impacts of other options would result in more costs than benefits, or would be ineffective in addressing the problem or achieving the objectives, the Final RIS will conclude in favour of retaining the status quo.

4.2 Non-Regulatory Option

The non-regulatory option considers how stated objectives can be achieved in the absence of regulation. This may include financial incentives, such as grants, or recommendations that build on existing market incentives to build AACFs, in addition to those that are already in operation.

Other possibilities under the non-regulatory approach could include:

- ▶ A national grant scheme or other mechanism to support the construction of AACFs.
- ▶ Publication of a guidance document (for example an ABCB handbook) that outlines how an AACF should be constructed, should a building owner elect to do so. Alternatively, governments could endorse an existing publication, such as the Changing Places Technical Standard, which may increase its reach and uptake.

Of all Australian States and Territories it is clear that Victoria is the most advanced at promoting AACFs. Analysis of this option assumes that, as is the case with Victoria, some form of financial grant or incentive is provided by government to building owners to construct AACFs in order to facilitate a continuous rate of uptake.

Refer to Table 7-5 for the modelling results for the non-regulatory scenario.

4.2.1 Regulatory Option

The regulatory option, which involves amending the Premises Standard and the NCC to mandate the provision of AACFs in Class 6 shopping centres and Class 9b assembly buildings, has a number of variations, or sub-options, all of which were canvassed at consultation.

The modelling and analysis provided throughout this RIS considers three discrete regulatory sub-options:

- ▶ Option A, which is intended as minimum necessary specification AACFs that are assumed to be co-located with SASFs.
- ▶ Option B, which is intended as minimum necessary specification AACFs that are assumed to be a separate facility from SASFs.

⁴⁴ Although in reality the status quo option would be expected to see moderate uptake of facilities as has been occurring in recent years, for modelling purposes it is assumed that under the status quo, no new facilities are constructed. Given the considerable irregularity of AACF uptake in recent years, any attempt to develop an assumed building profile under the status quo would in our view introduce an unacceptable degree of subjectivity into the results.

- ▶ Option C, which is fully conforming Changing Places / Lift & Change specification.

However, feedback on the analysis was unanimous in the view that the option mandated through regulation should be the minimum necessary specification option. A further concern raised in relation to the Changing Places specification (Option B of the Consultation RIS and Option C of the Final RIS) to install a peninsula toilet, which is not considered accessible by several members of the disability community. Under Option A and B of the Final RIS, a peninsula toilet is not a component of the specification, so as to alleviate these concerns.

In relation to the co-location versus separate issue, several stakeholders raised a preference for the co-location option. This caused a shift in focus relative to the Consultation RIS, where the separate option was considered the preferred option. The reasons for this change in focus are described in Section 7.2.4.

There is international precedent for introducing regulatory options to encourage the uptake of AACFs in Canada and the United States (California), as described in Appendix D.

5. Defining the population

In order to define the population we believe is most likely to benefit from greater provision of AACFs, we first define two distinct groups, or cohorts: the core cohort, for which we will directly attempt to measure the costs and benefits; and the non-core cohort, in which we include those people who do not have a direct need for AACFs but will nevertheless be benefitted by their installation.⁴⁵

5.1 Defining the core cohort

In 2015, the Australian Bureau of Statistics (ABS) published the results from the Survey of Disability, Ageing and Carers (SDAC),⁴⁶ which is the primary data source used to estimate the core cohort. Throughout the remainder of this Final RIS, we have used the term complex disabilities to define those in our estimated core cohort, in order to differentiate this cohort of people from those with profound disabilities. The term ‘complex’ disability is consistent with terminology used on the Changing Places Australia website.⁴⁷

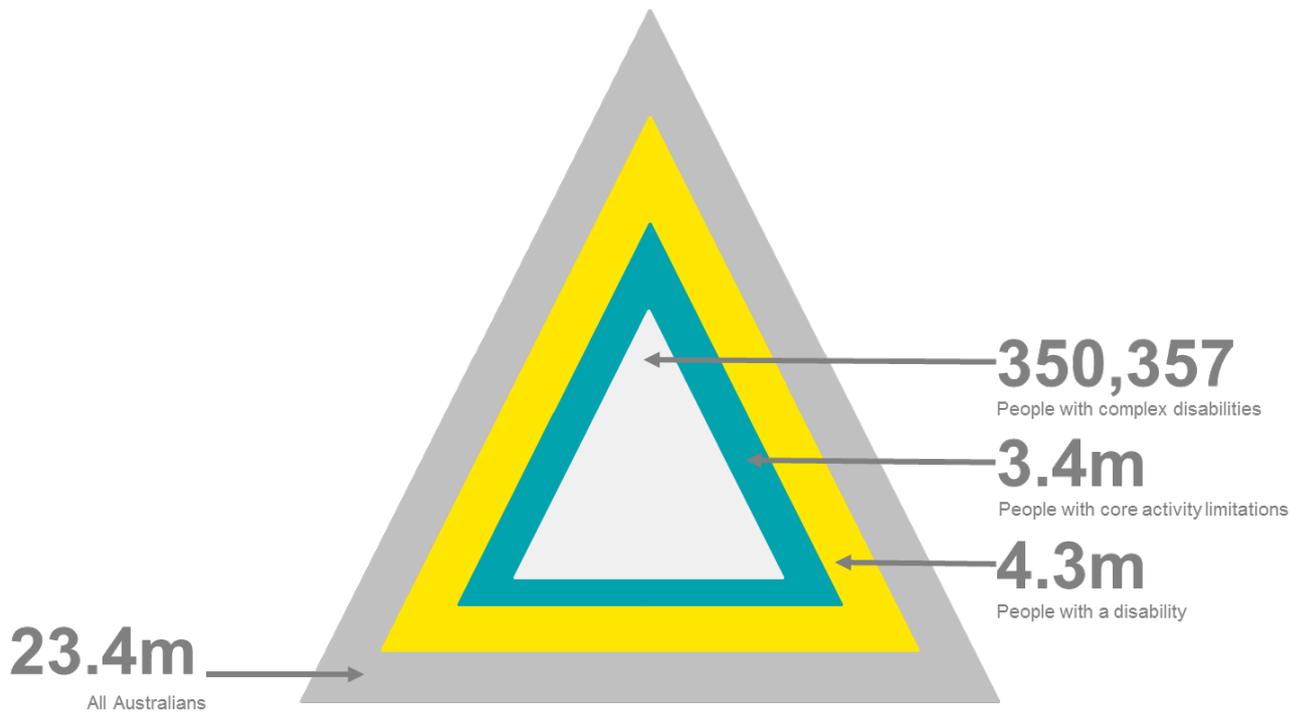
There is no single dataset that specifies how many Australians have complex disabilities that prevent them from being able to use existing accessible sanitary facilities independently. The approach we have adopted is a ‘bottom up and cross referencing’ approach. In other words, we started with various estimates from the SDAC of the number of people with disabilities and the number of people for whom the presence of core activity limitations inhibits the participation in daily activities, and refined those estimates in order to most closely reflect those who we believe are likely to benefit the most from AACFs. Once that approach was complete, we then cross referenced the estimate with other independent estimates to gain a final ‘sense check’.

⁴⁵ Note that the latter is assessed qualitatively not quantitatively

⁴⁶ Survey of Disability, Ageing and Carers (2015) <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4430.0>

⁴⁷ Changing Places, www.changingplaces.org.au

Figure 5-1: Bottom up approach to estimating the core cohort⁴⁸



Source: SDAC, EY estimates

5.1.1 'Bottom up' analysis

The SDAC found that almost one in five Australians reported living with a disability (18.3%, or 4.3 million people). The SDAC also allows us to separately identify those who need assistance with core activities such as toileting and other daily tasks; this comes to 3.4 million people (so there are approximately 900,000 people living with disability but who do not experience core activity limitations).

This 3.4 million figure can be further broken down by the estimated severity of core activity limitations:

- ▶ People with profound limitations (721,985 people or 3.1% of the population).
- ▶ Severe limitations (647,136 people or 2.8% of the population).
- ▶ Moderate limitations (598,899 people or 2.6% of the population).
- ▶ Mild limitations (1.4m or 6.1% of the population).⁴⁹

In the first instance we started with the sum of the 'profound' and 'severe' core activity limitations, which totals 1.4 million. However, we know from other literature sources⁵⁰ that this figure is a considerable over-estimate. The reason is that the classification of

⁴⁸ ABS SDAC, Productivity Commission, EY estimates.

⁴⁹ ABS (2015) 4430.0.30.002 – Microdata: Disability, Ageing and Carers, Australia, 2015.

⁵⁰ Australian Institute of Health and Welfare 2013. Incontinence in Australia. Cat. No. DIS 61. Canberra: AIHW, p 34, <https://www.aihw.gov.au/getmedia/0fc2a011-d290-42ef-a610-85073ef2909e/15387.pdf.aspx?inline=true>.

'profound' or 'severe' limitations is inherently subjective; limitations, which are deemed as moderate by some, might be considered as profound by others, and vice versa.

In order to further refine the 1.4 million figure, we also cross referenced that group of people with those who reported difficulty accessing buildings or facilities in the last 12 months, as this was thought to reduce the subjectivity in the measure.⁵¹

The result was 327,985 people with profound or severe core activity limitations, and who have had difficulty accessing buildings or facilities in the last 12 months. Furthermore, there are 22,372 people with a disability, and profoundly or severely limited in core activities, who do not leave home.⁵²

In total, based on the above, it can be estimated that there are 350,357 people with a disability and profoundly or severely limited in core activities who have either had difficulty accessing buildings or facilities in the last 12 months or who do not leave home. This is the group of people that we have considered as the core cohort. This represents an implied disability rate of 1.5 per cent of the total Australian population, which is used in both the case studies and the aggregate analysis to estimate the impacts of each option.

A detailed breakdown of the process described above is provided in Table 5-1, where the bold figures indicate those that we have included as part of our core cohort.

Table 5-1: Difficulty accessing locations due to disability in the last 12 months⁵³

Disability status	NA	Difficulty accessing buildings or facilities in last 12 months	No difficulty accessing buildings or facilities in last 12 months	Does not leave home	TOTAL
1. Has disability and profoundly limited in core activities	204,355	205,078	292,615	19,937	721,985
2. Has disability and severely limited in core activities	105,821	122,907	415,973	2,435	647,136
3. Has disability and moderately limited in core activities	233,841	66,634	297,819	606	598,899
4. Has disability and mildly limited in core activities	1,420,822	-	-	2,420	1,423,242
5. Has disability and not limited in core activities but restricted in schooling or employment	346,454	-	-	2,354	348,807
6. Has disability and not limited in core activities,	550,000	-	-	-	550,000

⁵¹ Though we acknowledge that 'difficulty accessing buildings' is itself somewhat subjective, we believe that cross referencing the level of severity of disabilities with actual difficulty experienced in accessing specific types of buildings will lessen the overall subjectivity of the estimate.

⁵² The inclusion of this group is worthy of further discussion to consider whether the presence of an AACF would encourage (or enable) them to leave the house.

⁵³ ABS (2015) 4430.0.30.002 – Microdata: Disability, Ageing and Carers, Australia.

Disability status	NA	Difficulty accessing buildings or facilities in last 12 months	No difficulty accessing buildings or facilities in last 12 months	Does not leave home	TOTAL
nor restricted in schooling or employment					
7. Has a long-term health condition without disability	5,170,985	-	-	1,192	5,172,177
8. No long-term health condition or disability	13,821,539	-	-	1,993	13,823,531
TOTAL	21,853,817	394,619	1,006,406	30,937	23,285,779

Source: SDAC, EY estimates

Note: Figures in bold are those which are included as part of the estimated core cohort.

5.1.2 Cross referencing with other estimates/approaches

In estimating the core cohort, we also cross referenced with other estimates and approaches, including the Changing Places approach in both Australia and the UK, and expected NDIS recipients.

Changing Places approach (Australia)

Changing Places (Australia) estimates that there are around 200,000 people with severe incontinence who have a disability and are profoundly limited in core activities. This estimate is based on the Australian Institute of Health and Welfare's (AIHW) report on Incontinence in Australia.⁵⁴

For the purposes of the AIHW Report, people with a disability were "identified as having severe incontinence if they:

- ▶ Answered 'yes' to having difficulty with controlling bladder or bowel functions and 'yes' to needing help with managing this difficulty (either always or sometimes needing help); and / or
- ▶ Answered 'yes' to using continence aid(s).

It is to be expected that this figure would be a subset of our estimate, since in our estimation having a complex disability doesn't necessary mean being incontinent.

Changing places approach (UK)

Another alternative would be to base the population estimate on the specific types of disabilities identified in the 2009 UK Changing Places Report, which estimates potential users of these facilities based on the number of people with certain types of disability.⁵⁵ However, this approach risked not only excluding people with profound or severe core

⁵⁴ Australian Institute of Health and Welfare 2013. Incontinence in Australia. Cat. No. DIS 61. Canberra: AIHW, p 34, <https://www.aihw.gov.au/getmedia/0fc2a011-d290-42ef-a610-85073ef2909e/15387.pdf.aspx?inline=true>.

⁵⁵ Hogg, J. (2009) Changing Places Toilets: Estimates of potential users, <http://changing-places.org/LinkClick.aspx?fileticket=X7QNBxsyhMU=&tabid=67>.

activity limitations who would not be captured by the specific list of conditions, but also could include people captured by the list, but who did not define themselves as having profound or severe core activity limitations. (Note that conditions have a broad spectrum of severity).

Expected NDIS recipients

As a final 'sense check' it is worth noting that when fully implemented in 2019-20 the NDIS is expected to benefit approximately 450,000 - 475,000 Australians.⁵⁶ While not directly relevant for the purposes of estimating our cohort, it is intuitive that our cohort would be roughly similar in magnitude to the expected number of NDIS recipients. While the NDIS relates to people under the age of 65, it is also expected that some people eligible for the NDIS will not require AACFs.

5.1.3 Limitations of our analysis

Although the estimated core cohort is expected to be more inclusive than other estimates, that is not to say that it is fully inclusive. We acknowledge that our estimated cohort likely excludes some people, including:

- ▶ People who have self-reported a moderate core activity limitation, but whose limitations might be considered profound or severe by others.
- ▶ People whose disability is so profound that they simply have not attempted to access buildings or facilities in the last 12 months (although to an extent this group is likely captured in the 'does not leave home' category).
- ▶ People who may have suffered from a one off injury which has left them with a temporary disability.

Finally, an inherent limitation of this type of analysis is that it is static, measuring the level of disability in the community at a point in time. Over time though, there will be inflows and outflows:

- ▶ People 'on the margins' of our core cohort – e.g. those who have reported a moderate core activity limitation, but whose condition is expected to worsen in severity over time – and would be expected to enter the cohort in the coming years.
- ▶ Some will leave the cohort in future periods, either through death or improvement in their condition.

An implicit assumption underpinning our analysis is that the inflows roughly equal the outflows in any given year, keeping the overall figure constant. A truly accurate estimation of the core cohort would require detailed life-cycle modelling, taking into account a range of variables such as projected mortality rates, disability rates, fertility rates, and migration rates.

⁵⁶ <http://www.ncoa.gov.au/report/phase-one/part-b/7-2-the-national-disability-insurance-scheme.html>;
<http://www.pc.gov.au/inquiries/completed/ndis-costs/report/ndis-costs-overview.pdf>.

5.2 Defining the non-core cohort

There are also a range of people outside of the core cohort who will also potentially benefit from these facilities. Those in the non-core cohort might include:

- ▶ **Elderly people:** People without a specific disability but face difficulties with core activities.
- ▶ **People with short-term injuries:** People that do not usually need change facilities but due to unforeseen injuries may have a short-term need for such facilities.
- ▶ **Industry / business:** Class 6 shopping centres and Class 9b assembly building owners/operators.
- ▶ **Carers:** People who assist core cohort users accessing sanitary facilities.
- ▶ **Non-users of the facility:** Other people who attend Class 6 shopping centres and Class 9b assembly buildings, due to a reliance on other facilities.
- ▶ **Government:** State/Territory and Commonwealth Government.

While the focus of this Final RIS is primarily on the ‘core’ cohort, given that there is no proposal to mandate the restriction of access to the facilities, it also captures the potential benefits for ‘non-core’ users.

Consultation questions

- ▶ Do you agree with the process described in Section 5.1 to estimate the core cohort of people with a complex disability? If not, can you suggest an alternative method?
- ▶ Do you agree with the inclusion of the 22,372 people with a disability and profoundly or severely limited in core activities who do not leave home in the core cohort?
- ▶ Do you agree with the description of the problem given in Section 2?
- ▶ Are there any other characteristics of the problem that should be included in the analysis?
- ▶ Is the currently defined population (see Section 5) appropriate for the analysis?

Summary of stakeholder feedback

While many responses noted that the process to estimate the core cohort was acceptable, there was a general lack of consensus regarding the accuracy of its results due to fragmented data and a lack of agreement around the defining characteristics of people that would use AACFs. This view was summed up by Shoalhaven City Council, which noted:

“Further advice is needed to determine what number of persons with disabilities are having their toileting needs met by the current, ambulant and accessible toilets. This is critical in relation to the design, especially the peninsula toilet and whether an adult lift and change can be incorporated into a compliant accessible design.”

The Victorian HHSBA suggested that the core cohort should be defined as simply being those people with profound and severe core activity limitations, totalling 1.4 million as described above.

While the merit of some aspects of alternative methodologies are acknowledged, it is noted that the figure of 1.4 million includes people with a range of limitations and ailments over which AACFs would have no effect. As such we consider that applying this figure would effectively mean ascribing benefits to people for whom the provision of AACFs would make little to no difference in their daily lives.

The categorisation of the estimated population who might benefit from AACFs into core and non-core was made for two reasons. First, it was made for conceptual purposes – to disentangle those for whom the use of an AACF is essential for basic needs (the core cohort) from those for whom the availability of an AACF is beneficial but not essential. Second, it was made for analytical purposes - for those in the core cohort, we have quantified the value of additional trips made as a result of the installation of an AACF; for those in the non-core cohort we have considered these and other benefits qualitatively.

We agree with the observation of Victorian HHSBA that different cohorts benefit in different ways. However, we believe the current categorisation into core and non-core cohorts represents the most analytically robust way of ensuring benefits are only quantified for those who need an AACF.

Most responses agreed with the inclusion in the core cohort of the 22,372 people who do not leave home. Those who did not agree, including TfNSW and the Australasian Railway Association, often noted the onerous medical requirements of many within this grouping would not result in increased demand for AACFs within the selected buildings.

It is considered that the inclusion of this group within the core cohort is appropriate. Given that the nature of each individual's medical condition is not known, an assumption that the majority have conditions that have or will continue to prevent them from leaving their homes would not be evidence based. Further, to the extent that the provision of AACFs will promote social inclusiveness and provide people with complex disabilities with greater opportunities for social interaction, people who do not currently leave home may be encouraged to do so as AACFs become more available.

In any case, it is noted that the inclusion of people with disability who do not currently leave home within the core cohort does not affect the overall conclusions of this Final RIS, nor does it materially alter the estimated impacts of the proposed regulatory solutions described in Chapter 7, given that this proportion represents approximately 6% of the overall population impacted by the problem.

While the majority of responses noted the defined population was appropriate for the analysis, a number of responses noted the complexity of defining those who would use AACFs and those who would benefit from them. Multiple responses were of the view that the non-core cohort was not fully captured and/or adequately represented in the analysis.

The Australian Human Rights Commission noted:

“Given the long lifespan of premises, population projections should also be taken into account to estimate the number of people who will use adult changing facilities into the future (and not just based on present population). This analysis should consider Australia’s projected ageing population, where people will be living longer with chronic and complex health conditions.”

It is agreed that Australia’s ageing population and the implementation of the NDIS may increase demand for AACFs in future. The core cohort is assumed to remain the same as in general, age related disability will not be a contributor to the cohort of new users of AACFs. The proportion of the population that may require the use of AACFs, and greater flexibility in care through the NDIS, might also result in more travel by people who use AACFs. As the effects of these factors are uncertain and difficult to quantify, they have not been included in the deliberately conservative core cohort population estimation.

TfNSW and the Australasian Railway Association noted that the defined population was not appropriate for most public transport buildings due to a range of reasons including low utilisation of existing facilities, and the broad nature of profound and severe activity limitations. For this reason as well as a range of other reasons described in Section 7.1.2, extending the requirements to public transport buildings is not recommended.

6. Measuring the costs and benefits

This Chapter describes the methodology employed in estimating the costs and benefits expected to accrue from mandating the provision of AACFs in selected Class 6 shopping centres and Class 9b assembly buildings.

6.1 Costs

The costs of this proposal are divided into capital expenses and ongoing operating expenses and are informed by two key reports:

- ▶ The updated '*Report on [the] Cost of Installing Typical Accessible Adult Change Facilities – Costs for Installation of [an] Incorporated and New Facility*', prepared by Donald Cant Watts and Corke (DCWC) and provided to EY by the ABCB on the 6th of June 2018.
- ▶ The *2017 Benchmarks Survey of Operating Costs, Retail, Shopping Centres* prepared by the Property Council of Australia.

6.1.1 Capital expenses

Capital expenses include those relating to the supply, construction, and installation of the new facilities as well as any associated additional works required to comply with the new regulation. Following the cost estimates provided to inform the Consultation RIS, DCWC provided updated cost estimates. This Final RIS relies on the updated cost estimates developed by DCWC.

Based on that updated report, the DCWC estimate of an average capital cost of \$28,500 for an Incorporated or Co-located Facility, and \$46,200 for a Separate Facility, was applied to this analysis.

The costs for a Co-located Facility refer to the extra costs of an integrated facility that encompasses the additional accessible sanitary requirements whereas a Separate Facility refers to the capital costs of providing additional walls and fitout of a separate accessible facility. The estimates relate to both Class 6 shopping centres and Class 9b assembly buildings and are based on an updated specification (rationalised since public consultation).

The estimated capital expenses include a design and construction contingency, and allowances for builder's preliminaries, margins and overheads.

6.1.2 Ongoing operating expenses

The ongoing operating expenses include those relating to the ongoing maintenance of facilities. This Final RIS relies upon cost estimates devised by the Property Council of Australia in its 2017 Benchmarks Survey of Australian shopping centres. It is assumed that the operating costs for AACFs do not differ by location.

For the purposes of this analysis an average operating cost of \$287 per square metre has been assumed to apply for operating costs, being the average metropolitan cost from the

Property Council's benchmark report. We have further assumed an average square meterage of 2.04m² per facility for an Incorporated Facility, and 7.68m² for a Separate Facility based on the specifications provided by DCWC.

6.1.3 Regulatory burden costs

The Australian Government has introduced the 'Guide to Regulation', which discusses the importance of cutting red tape.

A key principle for Australian Government policy makers in the Guide to Regulation is that the 'cost burden of new regulation must be fully offset by reductions in existing regulatory burden'.⁵⁷

All regulatory costs, whether arising from new regulations or changes to existing regulation, must be quantified using the Regulatory Burden Measurement Framework. The framework must also be used for quantifying offsetting regulatory savings, where applicable.

The only costs relevant to this analysis are capital and operating costs. Given that the regulation is proposed to apply only to prospective developments, there is not assumed to be any extension to construction periods, and thus there is not expected to be any delay or disruption cost. Similarly, as there is not expected to be a need for any additional staffing or administrative requirements from a government perspective, the cost of administering the regulatory amendment is expected to be minimal.

The ABCB has advised that an appropriate estimation for the regulatory offset is one-ninth of the total cost (proportional to the Commonwealth's share). This regulatory offset is calculated separately to the estimation of capital and operating costs and is not included in the total cost estimate.

Governments of the States and Territories are not required under Council of Australian Governments (COAG) policy to identify regulatory offsets. Some jurisdictions may have their own mechanisms regarding regulatory offsets, which would be a matter for those jurisdictions to consider.

Consultation questions

- ▶ Are the cost estimates applied in this analysis appropriate and reasonable?
- ▶ Are there any additional establishment and maintenance costs that should be considered?

⁵⁷ https://www.cuttingredtape.gov.au/sites/default/files/files/Australian_Government_Guide_to_Regulation.pdf

Stakeholder feedback

Most responses noted the cost estimates applied were appropriate for the scope of the analysis, or for new buildings over the coming 10 years. Rail industry estimates provided by the Australasian Railway Association for the design and construction of a stand-alone AACF were estimated as being in the range of \$150,000-\$300,000. It was noted by TfNSW and the Australasian Railway Association that the costs of AACF installation within an existing accessible facility is approximately \$50,000-\$120,000, and this range could increase significantly in transport buildings with heritage implications and site specific issues. These rail station specific cost estimates do not include acquisition costs for space, infrastructure reconfiguration and forgone revenue from leasing. TfNSW noted the average leasing revenue from retail space within a high patronage public transport environment is between \$10,000 and \$12,500m² per annum. A number of disability advocates noted capital costs could be reduced by requiring fit-for-purpose design requirements, rather than mandating prescriptive requirements that could be considered compliant with Changing Places specifications.

DCWC undertook a revised costing exercise based on revised design specifications and updated capital costs where necessary. These costs are provided in Section 6.1.1.

A number of stakeholders, including TfNSW, the Australasian Railway Association, Shoalhaven City Council and the Building Designers' Association of Queensland, noted maintenance costs may be understated. Multiple responses were of the view that mitigation measures for vandalism and misuse including regular refits and routine inspections should be considered as part of maintenance costs.

A wide range of estimates for additional costs were provided. TfNSW noted the average maintenance costs of AACFs were estimated at approximately \$50,000 per annum, per location. This estimate was noted to include regular refits and routine inspections.

The Building Designers' Association of Queensland noted that the loss of floor area of 3m² could have a cost implication of \$15,000. No further details were provided in support of this figure, however it is assumed that the figure relates to the potential revenue that could be generated by shopping centres if the space were leased rather than used as an AACF. There are three points worth making in relation to this figure:

- ▶ First, it is worth noting that these costs would only be incurred under the regulatory scenario, with any costs under the non-regulatory scenario being solely at the choice of the developer.
- ▶ Second, while we acknowledge that the requirement to install an AACF would potentially affect overall lettable area for smaller shopping centres, it is not clear that this would be the case for larger buildings, where sanitary facilities are typically grouped together as banks of toilets meaning the potential loss of \$15,000 to all new shopping centres would be an over estimate.
- ▶ Finally, analysis shows that the economic loss associated with a reduction in floor space would not outweigh the benefits associated from the installation of an AACF in shopping centres above 10,000 m².

Providing a counter-point to this view was Victorian HHSBA, which noted:

“We do not believe that there will be significant additional costs involved. The costs are fairly straightforward – regular cleaning as per any public toilet and equipment maintenance for hoist and change table as per manufacturer’s recommendation.”

Feedback from stakeholders indicated the Consultation RIS did not adequately capture establishment and maintenance costs for retrofitting existing buildings, particularly transport buildings. Owing to the considerable range in estimates provided of potential ‘additional’ costs, it is not considered prudent to separately include any such estimates in the modelling.

That said, it is noted that the minimum necessary specifications assumed under Regulatory Option A (which is the preferred option), have been developed so as to not specifically require mechanical features such as mechanical hoists. This in itself is likely to considerably reduce ongoing maintenance costs. It is also worth noting that benefits and costs for AACFs are considered over a ten year period, in which it is not expected that any large scale maintenance or replacement of parts of the AACF would be required.

Finally, while specific comments relating to the potential costs of retrofitting existing public transport buildings are acknowledged, based on our analysis and stakeholder feedback, mandating AACFs in public transport buildings is not recommended. The reasons for this recommendation are described in Section 7.1.2.

6.2 Benefits

This Final RIS considers two types of benefit: quantifiable benefits and qualitative benefits.

6.2.1 Quantifiable benefits – shopping centres, museums and stadiums

Quantifiable benefits estimate the ‘use’ value of an additional trip to a Class 6 shopping centre or Class 9b assembly building for a person with a complex disability.⁵⁸ The idea behind this approach is that any form of trip must hold some intrinsic value; this intrinsic value can be thought of as the utility gained from making a trip, over and above the cost of getting there.

For all case studies, our analysis initially calculates the ‘break-even’ value of utility, which is the point where estimated use values are just enough to cover the estimated capital and operating costs of an AACF. Following that, estimates of the potential benefits that the trip may generate are applied to the same analysis for shopping centres, museums and stadiums in order to calculate a range of benefits that may accrue.

We have used the cost of making the trip as a proxy for the upper bound value of the trip. Thus, if it costs say \$50 to travel to a Class 6 shopping centre or Class 9b assembly building, the utility (over and above the travel cost) must also be \$50.⁵⁹

⁵⁸ It is assumed that all trips are ‘additional’; i.e. they would not have occurred in the absence of an AACF being installed.

⁵⁹ The estimation of the willingness to pay which we have used for the scenario modelling is based on the Travel Cost Method. This is an approach commonly used in environmental economics for the purposes of quantifying an intangible good. We have adopted a similar approach here because it represents the clearest and most robust approach available for measuring the direct value of a trip.

There are a number of important points to make about the quantification of benefits:

- ▶ First, what we are measuring is the value of additional trips as a result of AACFs being included in prospective developments. We are not measuring the value of toileting needs being met. The latter is noted below as a qualitative benefit.
- ▶ Second, it is worth noting that by definition, the estimates that we have undertaken, most likely underestimate of the ‘true’ willingness to pay, for two reasons:
 - ▶ We are not considering the possibility for additional utility to exceed the travel cost (and based on our consultations and stakeholder feedback, it is fair to say that for some people it almost certainly will).
 - ▶ We have also not considered that buildings provide value for people merely by providing them the *option* to attend the building, even if they do not actually attend; in other words, people benefit merely from the existence of a building. In economics terms this is known as the ‘existence’ or ‘option value’.
- ▶ Third, we have also not taken into consideration the potential value that carers and/or family members might derive from a trip with their loved ones.
- ▶ Finally, as will be described in the following Chapter, the parameters that have been used for the modelling have been deliberately chosen to be as conservative as possible.

6.2.2 Quantifiable benefits – swimming pools and Airports

In the case of public swimming pools and airports, the methodology used for the above uses was not considered appropriate due to an assumption that the majority of trips made to a swimming pool for people with a complex disability would be made for therapeutic rather than recreational purposes, and trips made to an airport were not made for the purpose of attending an airport, but rather for the purpose of reaching an end destination.

Thus, in both cases the analysis began by assessing the minimum value of an individual trip that would be required in order for the installation of AACFs to be warranted. In the case of swimming pools, an estimate of the potential benefit for individual trips was available from the literature. This allowed the break-even analysis to be conducted on the basis of possible feeder populations for prospective swimming pools (See Section 7.1). In the case of airports, benefits for an individual trip were not known. As a result, the analysis focussed on a range of different patronage figures from a selection of small, medium and large airports across Australia, to provide an indication of the benefit per trip that would be required in order for the installation of an AACF to be justified from a break-even perspective.

6.2.3 Qualitative benefits

A regulatory change such as that being considered by this analysis will inevitably generate a range of benefits that are not directly caused by the trip to a Class 6 shopping centre or a Class 9b assembly building, but will nevertheless flow over time. It is worth noting from

the outset that these effects are not quantifiable and instead are considered through stakeholder feedback and the detailed consultation period undertaken by EY Sweeney.

At a high level, these benefits are likely to flow both to the person with a disability and their carers as well as to society in general, and are likely to range from improved quality of life,⁶⁰ improved wellbeing⁶¹ and improved mental and physical health outcomes.⁶²

We consider these benefits to be potentially very substantial, and in fact in our view the qualitative benefits will almost certainly outweigh the quantitative benefits discussed in the following Chapter. One stakeholder related the story of a young man who had unexpectedly become severely limited in core activities, and how to that gentlemen the loss of toileting abilities had had by far the greatest impact on his day to day life.

“I met a young man recently when I opened a lift and change facility ...He had severed his spinal cord in an accident eight years earlier. He told me that his greatest loss was not the loss of the use of his legs but the loss of his bladder and bowel control.”

The Australian Human Rights Commission noted in its submission that:

“The provision of adult change facilities has the potential to deliver various long-term, qualitative benefits for a person with a disability and their carers. The expected benefits include improved quality of life, improved community and social participation, and improved wellbeing and mental health outcomes.”

For example, the introduction of AACFs could facilitate improved social inclusion for people with a disability as a result of improved accessibility and mobility.⁶³ Over time, the consultation findings suggest that this might also help to reduce stress, improve social participation, and improve the quality of life and mental or physical health of not only people with complex disabilities but also their carers.

A summary of potential qualitative benefits is provided in Table 6-1.

⁶⁰ Jespersen, L., Michelsen, S., Tjørnhøj-Thomsen, T., Svensson, M., Svensson, B., and Due., P.(2018) Living with a disability: a qualitative study of associations between social relations, social participation and quality of life.

⁶¹ Productivity Commission (2011) Disability Care and Support – Productivity Commission Inquiry Report, 31 July 2011, <https://www.pc.gov.au/inquiries/completed/disability-support/report>.

⁶² Van Asselt, D., Buchanan, A., & Peterson, S. (2015). Enablers and barriers of social inclusion for young adults with intellectual disability: A multidimensional view. *Journal of Intellectual & Developmental Disability*, 40(1), 37-48. doi:10.3109/13668250.2014.994170; Welsby, J., & Horsfall, D. (2011). Everyday practices of exclusion/inclusion: women who have an intellectual disability speaking for themselves? *Disability & Society*, 26(7), 795-807. doi:10.1080/09687599.2011.618731.

⁶³ Stanley, J., Hensher, D., Stanley, J., Currie, G., Greene, W., Vella-Brodrick, D. (2011) Social Exclusion and the Value of Mobility, *Journal of Transport Economics and Policy*, Volume 45, Part 2, May 2011, pp. 197–222 ; Van Asselt, D., Buchanan, A., & Peterson, S. (2015). Enablers and barriers of social inclusion for young adults with intellectual disability: A multidimensional view. *Journal of Intellectual & Developmental Disability*, 40(1), 37-48. doi:10.3109/13668250.2014.994170.

Table 6-1: Summary of qualitative benefits

Group	Short term benefits	Long term benefits
Person with a disability	<ul style="list-style-type: none"> ▶ Toileting needs are met and equal access to facilities is provided. ▶ Longer attendance at Class 6 shopping centres or Class 9b assembly buildings ▶ Increased dignity. ▶ Reduced social isolation and increased social cohesion. ▶ Reduced stress and anxiety. ▶ Psychological benefits for people with a disability from outings. ▶ Enables an increase in discretionary time. 	<ul style="list-style-type: none"> ▶ Improved quality of life, wellbeing and mental health outcomes. ▶ Improved community inclusion. ▶ Improved social participation. ▶ Increased opportunities to engage with the workforce. ▶ Reduced reliance on social welfare and / or insurance. ▶ Greater personal freedom and empowerment.
Carer	<ul style="list-style-type: none"> ▶ Reduced stress and anxiety. ▶ Reduced need to change person with a complex disability in unsuitable environments. ▶ Longer attendance at Class 6 shopping centres or Class 9b assembly buildings. ▶ Improved social inclusion and inclusion in daily life / family activities for informal carers leading to reduced isolation. ▶ Reduced potential for injury in assisting person with a complex disability with their toileting needs. ▶ Enables an increase in discretionary time. 	<ul style="list-style-type: none"> ▶ Reduced stress from caring for person with a disability. ▶ Improved quality of life, wellbeing and mental health outcomes for informal carers. ▶ Improved social participation for informal carers. ▶ Opportunity to increase employment participation.
Society	<ul style="list-style-type: none"> ▶ Increased awareness of the special needs and challenges associated with living with a complex disability. ▶ Extension of benefits to people outside of the core cohort who nevertheless might benefit from AACFs including the elderly or people using wheelchairs, mobility scooters, etc. ▶ Promotes acceptance within the community of the principle that persons with disabilities have the same fundamental rights as the rest of the community. 	<ul style="list-style-type: none"> ▶ Better inclusivity and awareness in society. ▶ Reduced health system costs. ▶ Increased engagement in human rights and social impact. ▶ More equitable society. ▶ Needs of those with progressive diseases / disorders addressed. ▶ Tourism dollars increase due to availability of suitable facilities. ▶ Increased productivity by enabling greater employment participation by both people with a disability and their carers. ▶ Enables greater consumption and an increase in the taxation base. ▶ Potentially decreasing social welfare expenditure.

End user consultation findings

If AACFs were in place, the key benefits identified by participants included:

- ▶ **A more enriched life...** by providing facilities that enabled people to get out of the house and enjoy being part of the community, rather than sitting at home, isolated from the community.
- ▶ **Improved flexibility...** that will ensure people are able to engage in activities and maintain engagement with the community that they would not have otherwise been able to do.
- ▶ **Reducing the broader impact of disability on families...** which is often hidden, but exists in many ways ranging from physical and emotional support, to a reduced amount of time someone is able to spend in the community (e.g. shopping), to not being able to attend sporting or cultural events, go on holidays together, or even go to a pub or restaurant. The availability of AACFs would help to improve a carer's ability to more fully engage in community based activities, including going on holiday.
- ▶ **Reducing the hidden risks to those with disability...** through reducing the use of "work arounds", and improvised strategies that risk the health and wellbeing of both individuals and their carers.
- ▶ **Reducing the hidden cost of disability support...** with such a high proportion of people who need assistance being supported by relatives or friends, the potential cost burden on the Australian community could be significantly reduced with the introduction of AACFs. Participants therefore felt that it was appropriate that carers be supported through the provision of appropriate, accessible sanitary facilities.
- ▶ **Opening up more possibilities...** will be possible by increasing access and support for people who need it.

"A mark of a positive society is how they treat their most vulnerable ... and people with disability are part of that group" (Male, aged 25-30, spinal cord injury, VIC).

Consultation questions

- ▶ As a person with a disability or carer, how do you think you will benefit from the introduction of AACFs?
- ▶ How will the introduction of AACFs in Class 6 shopping centres and Class 9b assembly buildings impact on your level of community engagement and sense of inclusion in daily life and community activities?
- ▶ How will the introduction of AACFs in Class 6 shopping centres and Class 9b assembly buildings impact on your overall quality of life? Please indicate if this would differ under the different options?
- ▶ Are there other types of qualitative benefit that should be considered?

Stakeholder feedback

Of the responses who identified as having a complex disability or being the carer of a person with a complex disability, the benefit of the proposed reform was frequently described in terms of personal freedoms, social justice, discrimination reduction and equity. While quantifiable economic benefits were acknowledged, the societal, moral and ethical arguments were often noted as superseding any reasoning that could be substantiated with an analysis of economic costs and benefits. The response from stakeholders relating to the broad array of intangible benefits was consistent both with the end user consultations and the extensive literature review analysis carried out during preparation of the Consultation RIS.

A number of government bodies including the Australian Human Rights Commission and the Victorian HHSBA noted adherence to various government strategies and published benefits from Changing Places materials.

There was strong agreement across responses with regard to the enabling role of AACFs in community engagement and inclusion. In terms of impact, given the ever-present barrier toileting presents to those with a disability, the significantly improved equity and access AACFs provide was extolled by most responses.

This commentary was tempered by mention of the importance of the fit-out of the facilities by Shoalhaven City Council and some disability advocates, particularly the limitations of a peninsula toilet and the proportion of those with a disability who cannot use it.

The stakeholder feedback regarding impact on level of community engagement and sense of inclusion in daily life and community activities has been captured. The issue of some people with a disability being unable to use a peninsula toilet has been recognised through the revised minimum necessary specification as a central case.

No responses differentiated between the effectiveness of each regulatory option with regard to overall quality of life impact.

One participant of the end user consultation carried out during preparation of the Consultation RIS commented that *“The most important thing is building as many facilities as possible. You don’t need to stay at a five star hotel when a backpackers will do.”* (Mother, NSW).

Responses demonstrated a consensus that any of the options will have a significant positive impact on overall quality of life for the core and non-core cohorts. Though stakeholders did not identify differences in the quality of life benefits under alternative regulatory options, it is reasonable to conclude that the distribution and quality of life benefits in an aggregate sense would be lower under a non-regulatory option due to fewer AACFs installed under this scenario.

Responses commonly reiterated the significance of the short and long term qualitative benefits of reduced stress and anxiety, and improved mental health and wellbeing for those with a disability and carers. The Victorian HHSBA suggested that increased revenue and patronage for venue owners could be substantial, with a range of 20-25% increased turnover for universally accessible retail environments compared to non-accessible retail environments.

Discussion of the potentially greater significance of qualitative benefits has been added to the discussion of quantitative benefits throughout this Final RIS. While it is acknowledged that potential spending and revenue benefits could be considerable, these have been deliberately excluded from the analysis owing to uncertainty over the extent to which such spending is truly 'additional'. In other words, not only is it difficult to establish the amount of spending benefits, but it is also difficult to establish the amount of spending that would not have occurred in the absence of installing an AACF.

7. Impact analysis

This Chapter presents modelling results to give an indication of the scale of benefits that might accrue as a result of additional trips being made to Class 6 shopping centres or Class 9b assembly buildings following the introduction of an AACF. The Chapter is presented in three sections:

- ▶ Section 7.1 presents the results of the six quantitative case studies as well as provides a discussion of those case studies considered qualitatively.
- ▶ Section 7.2 presents whole-of-economy estimates, including thresholds, based on a range of assumed construction profiles for each of the regulatory options and the non-regulatory option.
- ▶ Section 7.3 considers the regulatory burden of the proposed change.

7.1 Case study analysis

The estimated benefits and costs of the proposed policy change for each of the quantified case studies are provided in Table 7-1. These results are driven by a range of assumptions regarding the distance and time involved to travel to each facility, population and visitation, and spending. A detailed overview of the assumptions is provided in Appendix A.

These case studies are presented using co-located Option A as a central case for analysis. This is based on stakeholder feedback on the design requirements from the Consultation RIS that have been revised for the Final RIS to recognise reduced costs, without a corresponding loss in benefits.

Shopping centres, museums and stadiums

The case study analysis for shopping centres, museums and stadiums measured the 'use value' of each additional trip that could be considered representative of a Class 6 or Class 9b assembly building. The basis of our modelling approach for these case studies can be found in the environmental economics literature – specifically, the value of a particular site is often estimated by using the cost of travel to and from that site. Although sufficient data were not available to use the Travel Cost Method in its entirety, the underlying rationale remains the same.

Our analysis for shopping centres, museums and stadiums consists of estimating the level of benefit that would be generated under three scenarios:

- ▶ Break-Even Scenario – This can be considered as the minimum value willingness to pay (WTP) that would be required in order for use values to exceed capital and ongoing costs. In other words it can roughly be thought of as the 'break-even' point, at which the total benefits equal total costs.
- ▶ Estimated travel cost per visit – The assumption here is that in order for people to make a trip to a shopping centre, museum or stadium, their consumer surplus ('utility' or 'enjoyment') would have to be at least as much as what it costs them to get there.

In other words, if a person is going to spend \$50 (including travel cost and entry fee) to go to a football match, they would want to get at least \$50 worth of additional enjoyment, over and above the \$50 cost. We have assumed that this is the upper bound value for WTP.

- ▶ Mid-Point – The mid-point between the Break-Even scenario and the estimated travel cost is provided in recognition of the range of different benefit levels produced.

Airports

Accessibility to transport networks was noted by many stakeholders as a policy imperative. However, unlike public transport it was considered that air travel is less likely to be substituted for other forms of transport. The provision of AACFs at airports would therefore have a more profound impact on the core and non-core cohorts. This assumption is supported by the views of stakeholders who described the differing characteristics of journeys that involve air travel compared to journeys that use other modes of transport.

A disability advocate highlighted the challenges of air travel in particular by describing the following journey:

“Imagine taking a plane trip from Sydney to Melbourne. As we live on the South Coast of NSW that’s a three hour journey to the airport. We check in one hour prior to departure, have one hour travel time to Melbourne and minimum of another hour to reach a CBD hotel. For our Adult child that’s a minimum of 6 hours until he can be changed from his soiled nappy.”

This analysis aims to consider the merits of mandating AACFs for airport terminals with passenger services.

A practical difficulty in assessing the case of an airport is the uncertainty with regard to the individual trip benefits. Noting that the value in this instance is derived from the value of the end destination rather than the value of a trip to the airport itself, the ‘total’ trip value actually encompasses a number of unique trips, the amalgam of which make up the ‘total’ trip value. From a modelling perspective, it is impossible to accurately disentangle the value of individual components of the ‘total’ trip from the overall value, and thus the value of a trip to an airport is not able to be estimated using the same method that was used for the other case studies.

As a result, in lieu of estimating individual trip benefits, this analysis has focussed on the value a benefit would *need to be* in order for the costs of installing an AACF to be covered by the benefits.

Key methodological points include:

- ▶ Patronage data for a range of small, medium and large Australian airports have been sourced from the Bureau of Infrastructure, Transport and Regional Economics (within the Department of Infrastructure, Regional Development and Cities).
- ▶ From overall patronage, the number of people with a complex disability expected to travel has been estimated by applying the share of the overall population in the ‘core

cohort' (which is 1.5%), and further applying an estimated propensity for people with a disability to travel, which has been sourced from the literature.⁶⁴

Public aquatic facilities

As outlined in the Premises Standards review,⁶⁵ a number of submissions called for AACFs to be included at swimming pools, commenting that “if accessible entry and exits are required, then appropriate changing and sanitary facilities also need to be provided.” This case study aims to consider the merit of mandating AACFs for indoor swimming pools.

The Royal Lifesaving Society estimated the total health benefits of a trip to a swimming pool to be \$26 per trip.⁶⁶ This estimate has been used as a benchmark assumption in the generation of whole-of-economy benefits for swimming pools. Two points are worth noting in applying this estimate:⁶⁷

- ▶ First, the estimate of \$26 per trip was for people with ‘minor’ disabilities, not complex disabilities. However, the higher disease burden for people with complex disability relative to minor disabilities means the therapeutic benefits of hydrotherapy would be expected to be higher, meaning the estimate of \$26 is conservative for our purposes.⁶⁸ In addition to the treatment of conditions, hydrotherapy’s ability to prevent different conditions⁶⁹ and the positive relationship between disease burden and susceptibility to the development of secondary conditions⁷⁰ lends further credence to the assumption that those with a complex disability would benefit more from hydrotherapy than those with minor disabilities.
- ▶ Second, the estimate was made on the basis of hydrotherapy in cold water. It is noted that hydrotherapy is primarily conducted in warm water, and this is where the majority of the health and therapeutic benefits lie. That said, immersion in cold water is also likely to be effective in alleviating the symptoms of those with a complex disability (albeit to a lesser extent).

7.1.1 Case study results

The results of the case studies, expressed in terms of the benefit per trip that would be required for the benefits to offset the costs, are provided in the tables below. In the case of

⁶⁴ Dwyer & Darcy 2008 Economic Contribution of Accessible Tourism in Australia (p.27) [<http://www.tourism.australia.com/en/news-and-industry-tools/building-your-tourism-business/accessible-tourism.html>].

⁶⁵ Department of Industry, Innovation and Science (2016) Review of the Disability (Access to Premises – Buildings) Standards 2010, https://www.industry.gov.au/sites/g/files/net3906/ff/July%202018/document/pdf/review_of_the_disability_access_to_premises-buildings_standards_2010_report.pdf.

⁶⁶ Barnsley, P. Peden, A. Scarr, J. (2017) Economic Benefits of Australia’s Public Aquatic Facilities, Royal Life Saving Society – Australia, Sydney.

⁶⁷ Also note that although we consider the approach used by the Royal Life Saving Society to estimate the benefits of hydrotherapy to be appropriate for this kind of analysis, the benefits for such a trip are highly individualised and are best viewed as illustrative.

⁶⁸ Centres for Disease Control and Prevention (2017) Related Conditions [<https://www.cdc.gov/ncbddd/disabilityandhealth/relatedconditions.html>].

⁶⁹ Martin-Valero, R. et al (2012) Evidence-Based Review of Hydrotherapy Studies on Chronic Obstructive Pulmonary Disease Patients [<https://pdfs.semanticscholar.org/3296/c6ba0621897ef3121465cdb911485b27cd0c.pdf>].

⁷⁰ Kinne, S. et al (2004) Prevalence of Secondary Conditions Among People with Disabilities [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1448273/>].

shopping centres, museums and stadiums, the estimated benefits from an individual facility over a ten year period are also presented.

Given that the costs are assumed to remain unchanged, the differences in the results for shopping centres, museums and stadiums are due to differences in two variables:

- ▶ The assumed number of unique visitors within the core cohort of people with a complex disability.
- ▶ The estimated travel costs, incorporating assumed mileage costs as well as entrance fees, as described in Appendix A.

Table 7-1: Modelling results for case studies

	Major shopping centre	Smaller shopping centre	Museum	Stadium
Present Value (PV) of Costs	\$32,704	\$32,704	\$32,704	\$32,704
Scenario				
Break-Even Point (BE, Required benefit per person per trip to break even)	\$0.72	\$2.16	\$5.71	\$6.66
Travel cost per visit (TC)	\$13.16	\$13.16	\$23.16	\$37.16
Mid-Point of TC and BE	\$6.94	\$7.66	\$14.43	\$21.91
Results - TC				
Benefits (PV)	\$598,679	\$199,560	\$132,704	\$182,458
Net Benefits (PV)	\$565,975	\$166,856	\$100,001	\$149,754
Results - Mid Point				
Benefits (PV)	\$315,691	\$116,132	\$82,704	\$107,581
Net Benefits (PV)	\$282,987	\$83,428	\$50,000	\$74,877

Notes:

1. Construction costs are incurred at the time of construction (one-off cost).
2. Present Values have been calculated over a ten year period for benefits and operational costs using a real discount rate of 7%.
3. The break-even point calculates the discounted per person, per trip benefit needed to equal the costs over a 10 year period. For example, a person with disability would require \$0.69 worth of utility per visit to a major shopping centre for the benefits to offset the costs over a 10 year period. See Section 6.1.1 for more information.

Modelling results for the airport case study are provided in Table 7-2. The table presents total annual patronage for a range of small, medium and large airports across Australia, as well as the estimated patronage from within the core cohort, based on two estimated travel propensities of people with a disability – one being 22%, which is the mid-point of the estimated propensities in Dwyer and Darcy’s study on accessible tourism⁷¹ and one at 11%, to demonstrate what the break-even point would be if travel propensities were half

⁷¹ Dwyer & Darcy 2008 Economic Contribution of Accessible Tourism in Australia [<http://www.tourism.australia.com/en/news-and-industry-tools/building-your-tourism-business/accessible-tourism.html>].

the midpoint. In both cases it can be seen that the estimated break-even is very low – with the highest being just \$12.

To give some context for these results, consider the average cost of a flight ticket. On the assumption that people would not take a flight if they did not expect to receive value at least the same as the cost of a flight, and given that the cost of a flight in Australia is generally in excess of \$100, it is considered that the requirements to install an AACF should be extended to all prospective airports or airport redevelopments. Even for the smallest regional airports, these results indicate that the break-even value per trip is considerably less than the cost of a flight.

Table 7-2: Modelling results for airport case study

Airport	Total Yearly Patronage	Estimated Core Cohort Patronage	Break-Even (required benefit per trip)
22% of people with a disability travel			
Wagga Wagga	224,336	739	\$6.30
Coffs Harbour	415,768	1,370	\$3.40
Townsville	1,590,025	5,238	\$0.89
Western Sydney (prospective)	5,000,000	16,470	\$0.28
Adelaide	8,111,934	26,721	\$0.17
Perth	12,381,495	40,785	\$0.11
Brisbane	22,949,267	75,596	\$0.06
Melbourne	35,559,378	117,134	\$0.04
Sydney	43,329,917	142,731	\$0.03
11% of people with a disability travel			
Wagga Wagga	224,336	369	\$12.60
Coffs Harbour	415,768	685	\$6.80
Townsville	1,590,025	2,619	\$1.78
Western Sydney (prospective)	5,000,000	8,235	\$0.57
Adelaide	8,111,934	13,361	\$0.35
Perth	12,381,495	20,393	\$0.23
Brisbane	22,949,267	37,798	\$0.12
Melbourne	35,559,378	58,567	\$0.08
Sydney	43,329,917	71,365	\$0.07

Notes:

1. Total yearly patronage figures sourced from Department of Infrastructure, Regional Development and Cities.
2. Estimated core cohort patronage figures calculated using the assumed disability rate of 1.5% - See Section 5.1 for further information.
3. Required break-even amount calculated using a real discount rate of 7% over 10 years.

Table 7-3: Modelling results for public aquatic facilities case study (Regulatory Option A)

Assumed feeder population	Estimated yearly visits by people with disability	Break-Even (required benefit per trip)
Feeder population 2 - 3,000	180	\$25.82
Feeder population 3 - 10,000	601	\$7.74
Feeder population 4 - 15,000	902	\$5.16
Feeder population 5 - 20,000	1203	\$3.87

Notes:

1. The 'feeder population' is taken to mean the assumed number of all people who might feasibly be expected to patronise a public swimming pool.
2. The estimated break-even value for each feeder population represents the amount of benefit for each trip that would be required in order to cover the costs of installing an AACF. Assumed patronage figures are taken from Dwyer and Darcy.⁷²
3. Required break-even amount calculated using a real discount rate of 7% over 10 years.

In summary, the pertinent points to make in relation to the modelling results for each quantified case study are as follows:

- ▶ For a **major shopping centre**, the break-even point (where the Present Value of costs is equal to benefits) is \$0.72. Applying the 'upper bound' WTP estimate of \$13.16 (the estimated travel cost) this generates net benefits of \$598,679 in Present Value terms.
- ▶ For a **smaller shopping centre**, the break-even point is \$2.16. Applying the 'upper bound' WTP estimate of \$13.16 (the estimated travel cost⁷³) this generates net benefits of \$199,560 in Present Value terms.
- ▶ For **museums**, the break-even point is \$5.71. Applying the 'upper bound' WTP estimate of \$23.16 (the estimated travel cost) this generates net benefits of \$132,704 in Present Value terms.
- ▶ For **stadiums**, the break-even point is \$6.66. Applying the 'upper bound' WTP estimate of \$37.16 (the estimated travel cost) this generates net benefits of \$182,458 in Present Value terms.
- ▶ For **airports**, the break-even point is estimated to be very low even for the smallest of commercial airports. Given the strong benefits that could flow from accessible tourism,⁷⁴ this is considered strong justification for mandating AACFs in prospective airports or airport re-developments.

⁷² Dwyer & Darcy 2008 Economic Contribution of Accessible Tourism in Australia [<http://www.tourism.australia.com/en/news-and-industry-tools/building-your-tourism-business/accessible-tourism.html>]

⁷³ Note that because the estimated travel cost for both the major and the smaller shopping centres are the same, so too is the upper bound WTP estimate

⁷⁴ Dwyer, L. Darcy S. (2008) The Economic Contribution of Accessible Tourism to the Australian Economy (p.27)

- ▶ For **public aquatic facilities**, the break-even point is estimated to occur when the feeder population of the facility exceeds 3,000. In other words provided the total potential feeder population of an indoor swimming pool exceeds 3,000, the benefits of installing an AACF (not including qualitative benefits) will outweigh the costs. This is based on an assumed \$26.39 worth of improved health outcomes per visit and an average of 4.4 visits per person per annum.⁷⁵

7.1.2 Qualitative case studies

As noted in Section 1.5 we have also qualitatively considered the case of a major public transport facility (e.g. a train station) and a convention centre.

Major public transport facility

In determining the suitability of requiring AACFs in public transport buildings and airports, the provision of public compared to privately provided passenger services was considered, in addition to the substitutability of bus, train and ferry services with other modes of transport compared to flights. It is considered that the core cohort, like the rest of the population have limited alternatives to the use of airports for long distance trips due to a number of factors such as speed and convenience air travel offers.⁷⁶ This contrasts with the use of public transport facilities where several feasible alternatives may exist, depending on the nature of the trip.

For regulation to be warranted, it is necessary to make the case that installation of an AACF would lead to a greater number of trips to a public transport facility than would otherwise have occurred. Feedback from stakeholders regarding the utilisation of existing AACFs at train stations in Melbourne and Perth, as well as an analysis of data from the Survey of Disability, Ageing and Carers (SDAC) indicates that at the present time, such a case is unable to be made.

In response to the Consultation RIS, the Australasian Railway Association submission noted that current AACFs at major train stations have low usage: Flinders Street Station in Melbourne has an average daily patronage of approximately 100,000 people while its AACF is used three times per day on average while the Perth Central Train Station has an average daily patronage of 36,000 people and its AACFs is used one to three times per day.

Given the estimates of the average daily patronage of these facilities and use of their AACFs, it is not considered that the presence of AACFs in these buildings is producing a demonstrable increase in patronage as a result of the installation of AACFs.

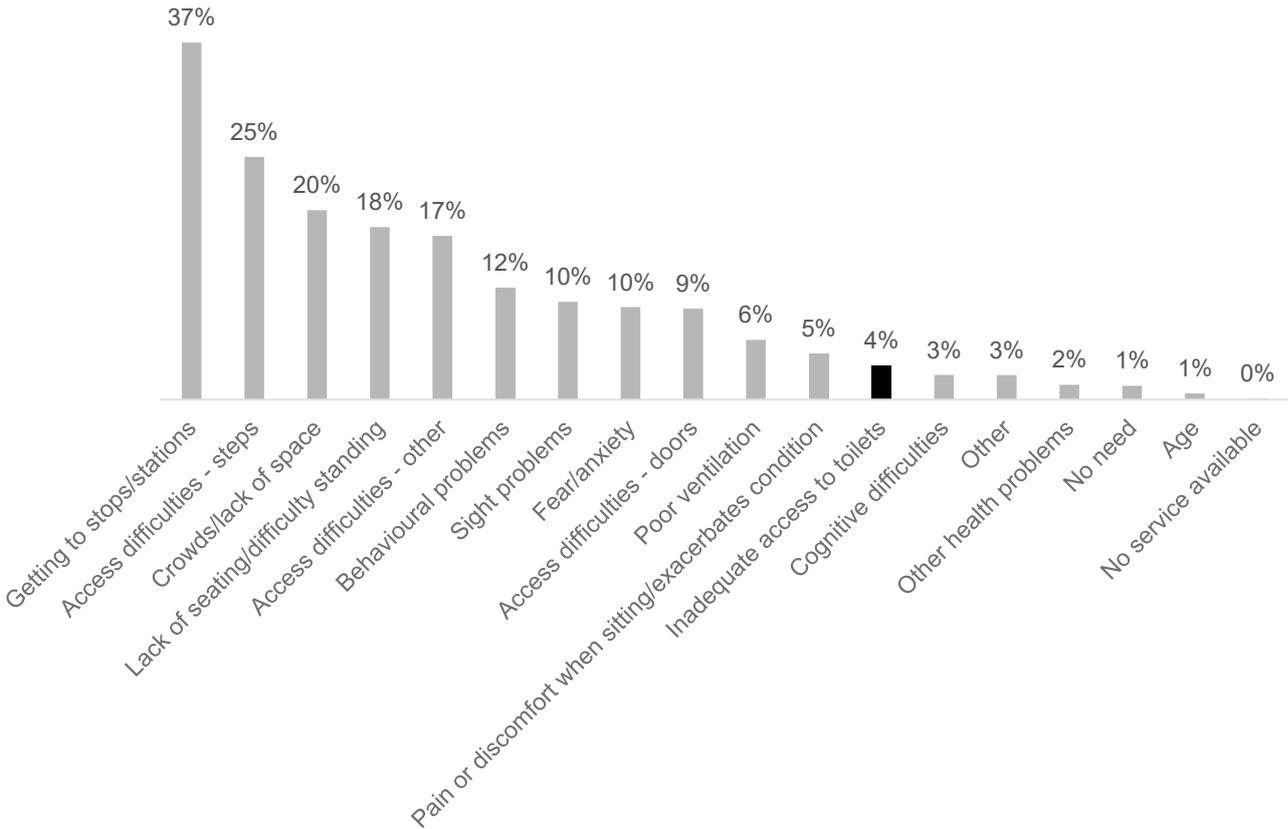
Notwithstanding these factors, mandating AACFs could still have merit if it were demonstrated that the inability to use current toileting facilities has a marked impact on peoples' ability (or willingness) to use public transport. Data from the SDAC on the barriers to public transport usage for people in our core cohort (those with a complex disability)

⁷⁵ Barnsley, P. Peden, A. Scarr, J. (2017) Economic Benefits of Australia's Public Aquatic Facilities, Royal Life Saving Society – Australia, Sydney.

⁷⁶ IBM Institute for Business Value, (2010) Airlines 2020: Substitution and Commoditisation (p.4).

indicate that, as would be expected, there are a range of barriers more pertinent than accessibility of toilets, as shown in Figure 7-1.

Figure 7-1: Reasons for inability to use some or all forms of public transport



Source: ABS 4430.0, Survey of Disability, Ageing and Carers

These findings suggest that even if AACFs were required in public transport buildings, a number of other outstanding issues would prevent the benefits of the AACF from being realised. In other words, if the objective is to increase the ability for people with a disability to utilise public transport, the factors likely to dominate a decision to travel would also need to be addressed.

In an Australian context, the launch of the Whole Journey Guide,⁷⁷ the Government’s response to the 2015 Review of the Disability Standards for Accessible Transport 2002,⁷⁸ notes the importance of considering the whole journey at the start of the transport planning process, and that this consideration can go beyond compliance with regulation. This Guide

⁷⁷ Australian Government (2017) The Whole Journey: A guide for thinking beyond compliance to create accessible public transport journeys, https://infrastructure.gov.au/transport/disabilities/whole-journey/files/whole_of_journey_guide.pdf.
⁷⁸ Australian Government (2015) Review of the Disability Standards for Accessible Public Transport 2002, https://infrastructure.gov.au/transport/disabilities/review/files/Australian_Government_Response_Transport_Standards_Review_Report.pdf.
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was endorsed by Transport and Infrastructure Council Ministers in November 2017 and provides a best practice guide to increasing the accessibility of public transport.

Given the significance of factors that reduce accessibility for public transport, a regulatory option is not considered the most effective or appropriate mechanism to address the defined problem as described in Section 2. The presence of feasible alternatives and significance of other barriers in terms of access to public transport networks provides a sound case for excluding public transport buildings from a requirement to install AACFs.

However, while a regulatory solution to mandate the provision of AACFs is not considered to be appropriate or effective, this does not diminish the need to provide equitable access to public transport networks. To address this need, various countries have introduced standards or guidelines for the provision of AACFs, namely in the United Kingdom, Canada and the US (California) as detailed in Appendix D.

These policy responses demonstrate an increasing recognition across comparable jurisdictions that while regulatory mechanisms may not be an appropriate response, the accessibility of public transport for people with complex disability is a matter in need of improvement. In an Australian context, this need would be best addressed in a holistic manner through policy instruments such as the Whole Journey Guide,⁷⁹ rather than through mandating AACFs in the NCC.

Libraries

It is not recommended that a regulatory solution be pursued in the case of libraries, for a number of reasons.

First, libraries are themselves primarily government owned, owing to the broad array of public benefits that libraries provide (such as contributing to social equity, educational outcomes, as well as providing a sense of community). Approximately 90% of libraries' funding is typically sourced from governments and the remainder from fees, charges and donations.⁸⁰ The broader public benefit of libraries, as well as the degree of control governments can exert on their construction and design, suggests that new libraries may seek to be as inclusive as possible under the status quo. As such, new libraries may opt to include AACFs without the need for regulation. This is consistent with a number of new libraries built since 2014 which includes the provision of AACFs on a voluntary basis.⁸¹

Second, the library industry is undergoing a period of structural change and consolidation, which has resulted in the number of library establishments declining over the past five years. With continued technological change and increasing urbanisation, this trend is expected to continue.⁸² This trend indicates mandating AACFs in new libraries would have relatively little material effect in addressing the defined problem compared to the other types of building considered in this Final RIS.

⁷⁹ Department of Infrastructure, Regional Development and Cities (2018) *The Whole Journey: A guide for thinking beyond compliance to create accessible public transport journeys*.

⁸⁰ IBIS World Industry Report, *Libraries and Archives in Australia*.

⁸¹ <https://changingplaces.org.au/wp-content/uploads/2017/05/CHANGING-PLACES-FACILITIES-LIST-v2.pdf>.

⁸² IBIS World Industry Report, *Libraries and Archives in Australia*.

Third, a likely consequence of the ongoing consolidation noted above is that new library developments going forward are likely to be either part of a broader development which may include other types of Class 6 or Class 9b building, or alternatively situated in close proximity to other buildings. Shopping centres and libraries are increasingly co-located due to the mutual benefits to retailers and libraries of complementary visitation purposes, and convenience for library users and shoppers afforded by shared parking.⁸³ This suggests that mandating AACFs for libraries could result in unintended clusters of AACFs and undue regulatory burden.

Owing to the reasons outlined above, it is considered that mandating the provision of AACFs in prospective library developments is not warranted. However, as with the case of public transport buildings, this finding should not be taken to mean that greater accessibility of library services is not a desirable goal. Libraries provide a far broader range of public services over and above just loaning books – as noted by the Australian Library and Information Association, public libraries support the information, education, cultural and recreational needs of local communities. They occupy a central place in community life.⁸⁴

This finding simply means that separately mandating the provision of AACFs in library developments is unnecessary, given that the majority of libraries are publicly funded (meaning they would have a greater chance of installing an AACF in the absence of regulation), and that most library developments tend to be located close to other public buildings which would be captured by the requirements.

Theatres

The benefits to attending theatres could, if there were sufficient data, be modelled in the same way as for museums.

It can be said with a fair degree of surety that a strong relationship between seating capacity and overall theatre attendance is likely to exist. However, there is a paucity of data showing patronage at theatres around Australia, and as such it was not possible to verify the extent of the relationship between size and patronage for modelling purposes.

As an alternative, theatres were considered from the perspective of accessibility of people with a disability to the performing arts. It is noted that cultural activities generate considerable economic benefits, estimated to be in the order of \$50 billion in 2012-13, or 4.0% of annual GDP.⁸⁵

Specifically on performing arts, 2015 data shows 78 tickets were sold per 100 population with attendance being in the order of 65-75% across the population, though this is notably lower amongst those with disabilities, at 59%.⁸⁶ For live performance arts, over half of attendances (and revenues) are accounted for by performances that would typically be held in theatres (53% of both measures).⁸⁷ In other words, it is apparent that there is an

⁸³ Australasian Public Libraries and Information Services (2006) *Public Libraries in Shopping centres: retail therapy or Social Inclusion?*

⁸⁴ https://www.alia.org.au/sites/default/files/documents/advocacy/PLSG_ALIA_2012.pdf.

⁸⁵ <http://www.australiacouncil.gov.au/workspace/uploads/files/the-cultural-economy-fact-shee-54f5fce276550.pdf>.

⁸⁶ <http://www.australiacouncil.gov.au/workspace/uploads/files/arts-nation-final-27-feb-54f5f492882da.pdf>.

⁸⁷ <http://reports.liveperformance.com.au/pdf/2016/LPA-Ticket-Survey-2016.pdf>.

element of unmet demand when it comes to theatre attendance by people with a disability; demand that could potentially be harnessed were AACFs provided.

However, while the arguments for extending the requirements to theatres are apparent, the threshold above which those requirements should apply is less so. At a broad level, two options were considered:

- ▶ First, the option of applying the same threshold as that for museums was considered (which would mean theatres with more than 1500 seats trigger the requirements).
- ▶ Second, the option of not applying a threshold altogether was considered.

Both of these approaches have their own benefits and drawbacks. Applying the same threshold for museums would have the advantage of ensuring the smallest theatres are not unfairly required to install a facility. The drawback of this approach is that it may result in a higher than necessary threshold and result in only very large theatres triggering the requirements.

In contrast, removing the threshold altogether would have the benefit of enhancing accessibility to the arts. However, there is a strong potential for unintended consequences in this approach for the imposition to install an AACF altering the feasibility of smaller theatre developments. This would have the perverse outcome of reducing accessibility to the arts for all people (by preventing otherwise viable theatre developments from going ahead).

In summary, although the need for extending the requirements to theatres is apparent from a qualitative perspective, there is insufficient evidence to definitively establish these benefits will be realised in all cases (as would be the case if no threshold was applied).

Given the paucity of data and the potential for unintended consequences on smaller theatres, it is recommended that AACFs be required for all new theatres with a design occupancy of 1,500 occupants or greater. Whilst acknowledging that this threshold is likely to be conservative, it will allow greater participation of people with complex disabilities in the arts and ensure that net benefits are achieved in major new theatres.

It also recommended that the requirements for theatres be reviewed following implementation once more information becomes available on its effectiveness in addressing the problem.

Public Halls

Public halls across Australia vary considerably, from regularly attended public facilities such as the Albert Hall in the ACT, to small scale regional halls which are rarely frequented. While the former type of hall may warrant the installation of an AACF, the latter category would likely not attract sufficient patronage so as to warrant mandating an AACF. Thus, in the absence of a clear way to distinguish between the two, and also given that the latter far outnumber the former, it is not recommended that AACFs be mandated for public halls.

7.2 Whole-of-economy analysis

Notwithstanding the challenges associated with estimating the economy wide impacts of greater provision of AACFs, it is important to obtain an indication of the potential magnitude of those impacts.

7.2.1 Estimating the threshold above which the requirements will be triggered

With any new regulation there is bound to be those who benefit from the change and those who do not. In this instance, primary beneficiaries are those people with disability whose toileting needs will be met, and owners of public buildings for which the increased visitation more than offsets the cost of installing an AACF. There is also a need to minimise costs of regulatory change, in this case ensuring that smaller buildings for which the increase in visitation is not sufficient to offset the cost of installing an AACF are not captured by the proposed requirements.

In an attempt to mitigate the impact on smaller facilities it is possible to derive a threshold above which the requirements will be triggered. In the context of the NCC, the most available method for assessing the number of sanitary facilities required by the DtS Provisions is the design occupancy. This is derived by dividing the overall floor space of a building by a given assumption of occupant density (expressed in terms of m² per occupant).

The optimal cut-off point was considered on the basis of four overarching criteria:

- ▶ Cost impact on a prospective building of being required to install an AACF.
- ▶ Extent to which visitation is likely to offset the cost impact.
- ▶ Extent to which the threshold might capture or neglect regional areas.
- ▶ Extent to which the threshold is sound when tested against representative building configurations.

This approach was used to derive thresholds for shopping centres and museums. The relevant areas per person according to use are contained in Table D1.13 of NCC Volume One.⁸⁸ The recommendations are set at a design occupancy of 3,500 for shopping centres, and 1,500 for museums. For swimming pools, the recommended threshold is not set in terms of occupancy numbers, but rather the perimeter of the swimming pool, which is recommended to be 70m which is consistent with the requirement for the installation of features to enable use of the swimming pool by a person with a disability.

In relation to shopping centres, a database of over 100 shopping centres Australia wide was developed, including the number of shops, total lettable area, and annual visitation data. An analysis of this database, compared with the estimated travel costs for individual visits as discussed in Appendix A, indicates that the threshold should be no higher than 10,000m² of overall floor space which equates to a design occupancy of approximately 3,500 occupants based on the shopping centres examined during preparation of this Final RIS.

⁸⁸ 4m² for museums and 3m² for shopping centres (assuming single storey buildings) is assumed for this analysis.
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Setting the threshold at lower than 10,000m² of overall floor space would risk extending the requirements to predominately neighbourhood shopping centres with a limited line supermarket plus one or two individual stores. Such small centres are not considered large enough, either in terms of annual visitation or in terms of revenue and cost factors, to warrant the mandatory installation of an AACF. For these buildings, AACFs will result in net costs and as such requiring AACFs in all new shopping centres is not recommended.

Finally, the costs of installing an AACF are considered minor when assessed against the capital costs of building or re-developing a shopping centre. It is expected that the requirements will be imposed on any new shopping centre or shopping centre re-development when the total floor space of the shopping centre after development exceeds 10,000m², or design occupancy exceeds 3,500 occupants.

The final criterion considered in determining an appropriate threshold was the impact on regional Australia. Analysis of the database described above indicates that setting the threshold at 10,000m² strikes an appropriate balance between the conflicting objectives of ensuring sufficient coverage of AACFs in regional areas, versus ensuring the cost burden does not fall unfairly on small shopping centres.

In relation to museums and art galleries, an analysis of existing buildings revealed a spectrum of possible sizes of buildings, with a discernible data gap in the middle. At one end of the scale are large, primarily government owned museums, the smallest of which has an overall floor space of 6,500m². At the other end of the scale are small, neighbourhood museums, often converted houses. These tend to be in the order of 500m², as shown in Table 7-4.

Table 7-4: Australian museums by floor space and exhibition size

Museum	Building Size	Exhibition Space
National Museum of Australia	110,000	6,600
National Gallery of Australia	20,573	7,000
National Portrait Gallery of Australia	14,000	-
Art Gallery of NSW	-	11,000
Australian Museum	6,500	-
Western Australia Museums (following redevelopment)	-	7,000
Queensland Gallery of Modern Art	25,000	-
Example Local Museums	Building Size	Exhibition Space
Bungendore Wood Works Gallery (NSW)	-	500
M16 ArtSpace (ACT)	-	267

Source: Compiled by EY based on publicly available information

The cost implications of installing an AACF are unable to be assessed due to a lack of data, however it is clear that at the largest end of the spectrum they would be inconsequential.

A ‘sense check’ of buildings on both ends of the size spectrum was conducted to assess the reasonableness of mandating an AACF – two options were chosen: the Australian

Museum with 6,500m² in floor space, and a small woodworks gallery with 500m² floor space. An analysis (including anecdotally) of the purpose of both buildings as well as the likely visitation indicates that whereas mandating an AACF in the former would certainly be warranted, in the latter it likely would not.

Consultation questions

- ▶ Do you agree with the preliminary finding that an AACF be provided in Class 6 shopping centres larger than 10,000m² and Class 9b assembly buildings?
- ▶ Should AACFs be mandated for museums and stadiums? If so, what should the 'cut-off' thresholds be for incorporation into the NCC?
- ▶ Are there any other thresholds apart from design occupancy/seating capacity that could be used to trigger the requirement for an AACF?

Stakeholder feedback

There was a general consensus among stakeholders that AACFs should be mandated for shopping centres with a design occupancy threshold. Shoalhaven City Council noted this threshold should be reduced to 600 people given regulatory requirements while a disability advocate noted the threshold should be removed in favour of a requirement for AACFs in all new public buildings. A member of the Association of Consultants in Access Australia noted their agreement with the design occupancy in excess of 2,000 people threshold on the proviso that consideration be given to concessions for retro-fits. Based on the additional analysis described above, it is recommended that the threshold for shopping centres be set at a floor space of 10,000m², which represents a design occupancy of approximately 3,500.

There was wide agreement among responses that AACFs should be mandated for stadiums and museums. Some specific comments include:

- *“Larger museums and stadiums with a capacity of 35,000 or more and for major public museums and galleries in capital cities and regional centres.”* – Victorian HHSBA.
- *“One per museum. Two for venues such as the Royal Agricultural Showground in New South Wales. Three for venues such as the Melbourne Cricket Ground, where access between sections of the complex is not readily available.”* – Accredited Member of Association of Consultants in Access Australia.
- *“I would have added an extra element being the ‘likely’ period that someone would be at / using the building in order to apply a factor of need i.e. if people are generally at a place for three or more hours (cricket stadium, cinema), then it is more likely a change facility would be needed. Conversely, an art gallery or museum may have a typical attendance period of say less than two hours.”* – Disability advocate.

The incompatibility of a threshold with the principles of equity and accessibility for public buildings was also noted by disability advocates in response to this question.

A number of stakeholders also provided commentary on a range of alternative or complementary thresholds apart from design occupancy / seating capacity:

- *“Consideration could be given to the number of visitors per year for venues such as tourist destinations and transport buildings that don’t have significant seating capacity but have high numbers of people using the building.”* – Victorian HHSBA.
- *“The time that individuals would spend at a location should also be a factor. Where time is minimal, as with train stations, the rail industry recommends that this would not support the inclusion of an AACF. In addition, consideration should be given as to whether other AACFs already exist nearby that may negate the need for an additional AACF in a certain location.”* – Australasian Railway Association.
- *“The frequency and variety of uses. The provision for activities which involve people who use a wheelchair.”* – Accredited Member of Association of Consultants in Access Australia.
- *“Rural and remote issues should also be considered when determining thresholds. Premises in regional and rural areas may be designed for smaller markets. Despite smaller occupancy levels, these premises should be inclusive of people with disability. Particularly as these facilities may be the only available option for people with disability in these areas.”* – Australian Human Rights Commission.
- *“The whole question of thresholds and capacities depends on the universality of the L&C facility, its cost and the space it occupies. If Changing Places designs are used there certainly needs to be thresholds. The more low key and universal the facilities are, the lower the threshold.”* – Disability advocate.
- *“A threshold is not necessary, all new public accessible buildings should have an adult change facility.”* – Disability advocate.

While it is acknowledged that a number of submissions advocated removal of the threshold, these submissions were based largely on individual benefits which must also be balanced against economic factors. From an economic perspective, visitation to a building must be sufficiently high for the overall benefits (being the benefits on a per trip basis multiplied by the estimated number of trips made to a building by a person with a complex disability as a result of an AACF being installed) to outweigh the costs.

For example in the case of smaller shopping centres, given their larger number and lower expected visitation, the expected benefits do not outweigh the costs of installing an AACF (using the ‘break-even’ analysis described in Section 6.2.1). It is calculated that at a threshold of 10,000m² the benefits balance the likely financial consequences of requiring AACF in all centres. Although data were not available to separately model museums and stadiums to the same extent as was the case for shopping centres, it is considered that the logic for thresholds for these buildings is similarly justified.

Class 6 and 9b buildings by their nature of use are more likely to be built in urban areas with demand from a local geographic area to support their operation. Bearing in mind that two thirds of the estimated core cohort live in capital cities (refer to Table 2-1), the imposition of a 10,000m² threshold is expected to cover the majority of prospective AACF users. The imposition of thresholds is also location agnostic, and is made on the basis of

projected visitation and not the location of prospective buildings. It is acknowledged that this will result in some prospective developments not being captured by the proposed regulatory requirement. However, given that population is not able to be separately considered within the confines of the NCC, thresholds are not able to be estimated separately for regional areas. Such matters are better considered through market forces, local planning regulations or as the remit of a community decision on need such as is currently the case.

7.2.2 Estimating the number of facilities / buildings

Estimating the total costs and benefits of a regulatory proposal such as this involves first estimating the number of prospective buildings that would be subject to the regulation. For these buildings, this is an inherently difficult task, as data showing the number of new shopping centres, museums, stadiums, airports and public aquatic facilities likely to be constructed in the future is limited.

The most reliable and consistent data set identified for new shopping centres, museums and stadiums is IBISWorld which contains projections of the number of shopping centres, museums and stadiums over a five year projection period. We have therefore adopted this as the 'base' estimate of the number of new facilities and cross referenced where appropriate with knowledge on specific investment projects.

- ▶ For shopping centres, the number of new centres with a floor space of less than 10,000m² has been estimated on the basis of information provided by the Shopping Centre Council of Australia (SCCA).
- ▶ For indoor swimming pools, a 'base' figure of 1,000 is taken from the Royal Lifesaving Society Report, and it is assumed that the number of swimming pools grows in line with population growth. This results in a figure of approximately 20 'new' swimming pools each year.
- ▶ Finally, it is acknowledged that the requirements will extend not only to new developments but also to redevelopments alterations and additions. For shopping centres, the number of additions or redevelopments is based on information by the SCCA which indicates that the average shopping centre undergoes a major redevelopment on average every seven to ten years.⁸⁹

Alterations and additions are not modelled for museums, stadiums or swimming pools. It is worth noting however that, provided a prospective alteration or addition will result in a building exceeding the threshold, then the installation of an AACF is considered warranted (in addition to the vast social benefits that would accrue) from a cost benefit perspective.

7.2.3 Estimating the costs and benefits

In estimating the costs and benefits the following important assumptions need to be kept in mind:

- ▶ It is assumed that each 'new' building will incur costs and benefits for a ten year period. In other words, a building constructed in 2018 will incur costs (operating costs)

⁸⁹ <http://www.scca.org.au/wp-content/uploads/2015/06/Briefing-Note-Shopping-Centre-Redevelopment.pdf>.

and benefits until 2027, while a building built in 2027 will incur costs (operating costs) and benefits until 2036. The estimated number of 'new' buildings constructed in both the regulatory and non-regulatory scenarios are shown in Appendix A.

- ▶ The benefit for a single trip to an aquatic facility is assumed to be \$26 per trip, as described earlier.
- ▶ Given a lack of information about prospective benefits per trip in relation to airport developments, whole-of-economy results are not provided for airports. The break-even figures are considered sufficiently low so as to easily warrant the mandating of facilities. It is also worth noting that over the next ten years the number of prospective buildings is expected to be relatively low.
- ▶ The modelling results for the non-regulatory and regulatory scenario should be interpreted as being additional to the status quo.⁹⁰
- ▶ The modelling results do not assume any form of diminishing marginal returns. To the extent that the estimated development pipeline is relatively narrow, this is likely a reasonable assumption.

7.2.4 Regulatory Options A and B – co-located and separate AACFs

The costs of the regulatory option can be influenced by whether an AACF could also be counted as an SASF for the purposes of assessing compliance with the existing Premises Standards and NCC requirements for the provision of accessible sanitary facilities. Based on the DCWC report, separate AACFs have an estimated capital cost of \$46,200 while for co-located AACF's the estimated capital cost is \$28,500.

The co-located facility would have a lesser impact in terms of required floor space (which has an economic value) than a stand-alone facility. In a building where only one SASF is currently required, it would in effect be incorporated with an AACF. Since the Consultation RIS, the technical specifications for AACFs have been revised to ensure the intended dual purpose can be met.

In the Consultation RIS, it was assumed that the AACF would be constructed in addition to a SASF – in other words, a separate facility was deemed preferable to a co-located facility. The option to provide separate facilities was considered preferable owing to a concern that usage of co-located facilities would result in those with complex disabilities occupying the facility for large periods of time.

However, stakeholder feedback and data was provided on the use of existing AACFs and suggests such issues are likely to be negligible for a number of reasons.

Firstly, it was commented that usage of AACFs for some populations meaning the time occupied by those using the AACFs is not likely to be significant – the facility at Flinders

⁹⁰ Under the status quo, it is assumed that no new buildings install an AACF over the projection period.

Street Station in Melbourne, a railway station with daily passenger throughput in excess of 100,000 per day, was commented to be used on average only three times per day.

Secondly, one disability advocate commented that separation of the facility could have other unintended consequences.

“Today you regularly see a queue outside a standard accessible toilet, while the huge changing places next door is locked. This scenario is going to create division within and animosity towards the disabled community. If you want to add benefit, moderate the size and expense of L&C, and make them universal.”

Thirdly installation of separate SASF and AACF facilities would not be prevented by the NCC. It is anticipated that this configuration will be the case where required. However, owners may choose to separate facilities, and incur higher costs of constructing a separate facility, and accept an overall lower, yet still positive net benefit.

Finally, the presence of an alternative SASF is more likely in buildings with occupancy that exceed the suggested thresholds. Therefore, an AACF will only be co-located at one of a number of alternative SASF locations that will remain unaffected by the proposed change.

7.2.5 Regulatory Option C – Changing Places

For completeness, the second option (Option B) tested in the Consultation RIS – to mandate the provision of full specification Changing Places facilities – is also discussed and is now Option C in this Final RIS.

This option is not the central case for the following reasons:

- ▶ It is less desirable from a cost benefit perspective, since the minimum necessary specifications are sufficient for the benefits to be generated.
- ▶ Stakeholders were unanimous in their commentary that regulation should only mandate the ‘basic’ facilities, as illustrated by the following excerpt from a disability advocate’s submission.

“The basic facilities mandated by regulation should be adequate for the job, not top shelf.”

- ▶ It was also commented that the peninsula toilets specified in the Changing Places specification would actually serve to exclude certain people in need of an AACF or SASF (those unable to use a peninsula toilet). Shoalhaven City Council stated in its submission:

“Local wheelchair users who self-transfer to the toilet tell us that they are prevented from using the peninsula style toilets because the lift away handrails do not provide adequate support and stability for them to use the toilet independently. Further investigation is needed as to design of peninsula toilet. There may be a perception of segregating persons with disabilities whereas there is an opportunity for inclusivity by enabling all to use the one facility.”

7.2.6 Non-regulatory option

Our analysis assumes that governments incentivise the construction of AACFs by way of direct financial subsidies that are assumed to cover the entire capital costs. These would be in addition to the financial subsidies that already exist. In this instance we have assumed that governments will meet all the capital costs of the AACF, whereby the operator of the building will then meet ongoing operating costs.

The estimated building profile under both the regulatory and non-regulatory scenarios is presented in Appendix B. For the non-regulatory scenario, it is necessary to define the proportion of prospective buildings assumed to install a facility under a grants system. This was estimated as follows:

- ▶ It is noted that Victoria has 52 AACFs which, given facilities started to come on line from around 2010, equates to approximately 6 facilities per year.
- ▶ Using this figure for other states (factoring up by the proportional difference in the core cohort population), gives an estimated total of 22 AACFs per year.
- ▶ Assuming one facility per building, this equates to, on average, around 60% of the estimated total from IBIS World. Thus, it is assumed that under the non-regulatory option 60% of projected buildings will install an AACF.
- ▶ Finally, an adjustment is made to ensure whole numbers – for example, a figure of 3.6 is rounded down to 3.

The estimated costs under the non-regulatory option are provided in Table 7-5.

Table 7-5: Modelling results for non-regulatory scenario

Change in costs (\$million)	Business	Government	Individuals	Total cost
Non-regulatory option	\$8,920,008	\$16,330,981	\$0	\$25,250,989

7.2.7 Estimating the whole-of-economy impacts of the regulatory proposal

Consistent with the approach used for the case studies, the whole-of-economy impacts for shopping centres, museums and stadiums were developed in the following way:

- ▶ A break-even unit cost was calculated by applying the number of total visits (the process of estimating which is described in Appendix A) to the present value of the total costs. This provides an indication of the minimum level of benefit that would need to be generated to cover the costs. Any benefit above this would generate net benefits overall.
- ▶ For shopping centres, museums and stadiums, an estimated 'willingness to pay' figure was calculated in the same manner as for the case studies. This was determined by

estimating the travel costs and entrance fee, where applicable, of the relevant buildings.⁹¹

The whole-of-economy impacts for public aquatic facilities was generated with reference to the assumed benefit per trip of \$26.32, as described in Section 7.1. In order to generate an estimate of the potential benefits, the central case was assumed to be a feeder population of 15,000. Insufficient data exist to definitively test this assumption. In order to provide an anecdotal 'sense check' as to the voracity of the 15,000 feeder population assumption, a database was developed of indoor public swimming pools within Canberra. Our analysis revealed there are 20 indoor swimming pools. For a total Canberra population of approximately 400,000, this implies a feeder population per swimming pool of 20,000.

7.2.8 Estimated whole-of-economy impacts of the regulatory proposal

The estimated whole-of-economy impacts for shopping centres, museums, stadiums, airports and public aquatic facilities are shown in Table 7-10.

The key findings are as follows:

- ▶ For shopping centres, the break-even point (where the NPV of costs is equal to benefits) is \$2.16, \$3.45, \$4.54 and \$2.16 for the co-located, separately located, Changing Places and non-regulatory scenarios, respectively. Applying the WTP estimate of \$13.16 (the estimated travel cost) this generates net benefits of \$154.6 million, \$126.1 million, \$101 million and \$87.3 million for the respective scenarios. These results are shown in Table 7-6.
- ▶ For museums, the break-even point, is \$5.71, \$9.12, \$23.49 and \$5.71 for the co-located, separately located, Changing Places and non-regulatory scenarios, respectively. Applying the WTP estimate of \$23.16 (the estimated travel cost) this generates net benefits of \$2.7 million, \$1.4 million, -\$2 million and \$38,000 for the respective scenarios. Importantly, the considerably higher costs of the Changing Places specifications make this option not feasible from a benefit cost perspective. These results are shown in Table 7-7.
- ▶ For stadiums, the break-even point, is \$6.66, \$8.25, \$10.87 and \$6.66 for the co-located, separately located, Changing Places and non-regulatory scenarios, respectively. Applying the WTP estimate of \$37 this generates net benefits of \$3.2 million, \$2.2 million, -\$384,000 and \$1.4 million for the respective scenarios. These results are shown in Table 7-8.
- ▶ For indoor aquatic facilities, the break-even point, is \$5.16, \$8.25, \$10.87 and \$5.16 for the co-located, separately located, Changing Places and non-regulatory scenarios, respectively. The estimated whole-of-economy benefit from an NPV perspective assuming a feeder population of 15,000 is \$16.1 million, \$13.1 million, -\$5.7 million and \$7.1 million for the respective scenarios. These results are shown in Table 7-9.

⁹¹ The assumption being that the benefit accrued would be at least equal to the cost of visiting the building; if the level of benefit was lower than the cost of entry then the trip would not be undertaken in the first place.

Table 7-6: Illustrative whole-of-economy benefits – Shopping centres

	Regulatory Option A – co-located	Regulatory Option A – separate	Regulatory Option B (Changing Places)	Non-regulatory Option
Present Value (PV) of Costs	\$9,113,399	\$37,621,292	\$62,787,247	\$10,907,310
Findings from case studies				
Break-Even Point (BE, required benefit per person per trip to break even)	\$2.16	\$3.45	\$4.54	\$2.16
Willingness to Pay (WTP)	\$13.16	\$13.16	\$13.16	\$13.16
Mid-point of WTP and BE	\$7.66	\$8.30	\$8.85	\$7.66
Economic benefit - TC				
Benefits (PV)	\$163,747,755	\$163,747,755	\$163,747,755	\$98,248,653
Net Benefits (PV)	\$154,634,356	\$126,126,463	\$100,960,508	\$87,341,343
Economic benefit – Mid-point				
Benefits (PV)	\$86,346,369	\$86,346,369	\$86,346,369	\$51,807,821
Net Benefits (PV)	\$77,232,970	\$48,725,077	\$23,559,122	\$40,900,511

Notes:

1. Present Values have been calculated over a ten year period for both costs and benefits using a real discount rate of 7%.
2. The break-even point calculates the discounted per person, per trip benefit needed to equal the costs over a 10 year period for a single facility.
3. The non-regulatory scenario assumes the same type of facility is constructed as under Option A, but that fewer overall are constructed. Thus the per facility break-even and WTP estimates are the same in the non-regulatory scenario as in Option A.
4. Whole-of-economy values are derived by multiplying the estimated benefits per trip and break-even points from the case studies by the assumed number of buildings of each type expected to be developed over the next 10 years.

Table 7-7: Illustrative whole-of-economy benefits – Museums

	Regulatory Option A – co-located	Regulatory Option A - separate	Regulatory Option B (Changing Places)	Non-regulatory Option
Present Value (PV) of Costs	\$1,306,110	\$2,595,532	\$6,019,200	\$1,188,700
Findings from case studies				
Break-Even Point (BE, required benefit per person per trip to break even)	\$5.71	\$9.12	\$23.49	\$5.71
Willingness to Pay (WTP)	\$23.16	\$23.16	\$23.16	\$23.16
Mid-point of WTP and BE	\$14.43	\$16.14	\$23.33	\$14.43
Economic benefit - TC				
Benefits (PV)	\$4,017,786	\$4,017,786	\$4,017,786	\$1,226,882
Net Benefits (PV)	\$2,711,676	\$1,422,254	-\$2,001,414	\$38,181
Economic benefit – Mid-point				
Benefits (PV)	\$2,503,966	\$2,503,966	\$2,503,966	\$2,503,966
Net Benefits (PV)	\$1,197,856	-\$91,566	-\$3,515,234	\$1,315,266

Notes:

1. Present Values have been calculated over a ten year period for both costs and benefits using a real discount rate of 7%.
2. The break-even point calculates the discounted per person, per trip benefit needed to equal the costs over a 10 year period.
3. The non-regulatory scenario assumes the same type of facility is constructed as under Option A, but that fewer overall are constructed. Thus the per facility break-even and WTP estimates are the same in the non-regulatory scenario as in Option A.
4. Whole-of-economy values are derived by multiplying the estimated benefits per trip and break-even points from the case studies by the assumed number of buildings of each type expected to be developed over the next 10 years.

Table 7-8: Illustrative whole-of-economy benefits – Stadiums

	Regulatory Option A – co-located	Regulatory Option A - separate	Regulatory Option B (Changing Places)	Non-regulatory Option
Present Value (PV) of Costs	\$996,768	\$1,980,801	\$4,593,600	\$800,578
Findings from case studies				
Break-Even Point (BE, required benefit per person per trip to break even)	\$6.66	\$8.25	\$10.87	\$6.66
Willingness to Pay (WTP)	\$37.16	\$37.16	\$37.16	\$37.16
Mid-point of WTP and BE	\$21.91	\$22.70	\$24.01	\$21.91
Economic benefit - TC				
Benefits (PV)	\$4,209,345	\$4,209,345	\$4,209,345	\$2,200,724
Net Benefits (PV)	\$3,212,577	\$2,228,544	-\$384,255	\$1,400,146
Economic benefit – Mid-point				
Benefits (PV)	\$2,481,915	\$2,481,915	\$2,481,915	\$1,297,591
Net Benefits (PV)	\$1,485,147	\$501,114	-\$2,111,685	\$497,013

Notes:

1. Present Values have been calculated over a ten year period for both costs and benefits using a real discount rate of 7%.
2. The break-even point calculates the discounted per person, per trip benefit needed to equal the costs over a 10 year period.
3. The non-regulatory scenario assumes the same type of facility is constructed as under Option A, but that fewer overall are constructed. Thus the per facility break-even and WTP estimates are the same in the non-regulatory scenario as in Option A.
4. Whole-of-economy values are derived by multiplying the estimated benefits per trip and break-even points from the case studies by the assumed number of buildings of each type expected to be developed over the next 10 years.

Table 7-9: Illustrative whole-of-economy benefits – indoor aquatic facilities

	Regulatory Option A – co-located	Regulatory Option A - separate	Regulatory Option B (Changing Places)	Non-regulatory Option
Present Value (PV) of Costs	\$6,049,351	\$9,164,910	\$27,878,400	\$5,609,065
Findings from case studies				
Break-Even Point (BE, required benefit per person per trip to break even)	\$5.16	\$8.25	\$10.87	\$5.16
Economic benefit – feeder population: 15,000				
Benefits (PV)	\$22,226,290	\$22,226,290	\$22,226,290	\$12,707,671
Net Benefits (PV)	\$16,176,940	\$13,061,381	-\$5,652,110	\$7,098,606

Notes:

1. Present Values have been calculated over a ten year period for both costs and benefits using a real discount rate of 7%.
2. The break-even point calculates the discounted per person, per trip benefit needed to equal the costs over a 10 year period.
3. 15,000 is considered an appropriate central scenario for the feeder population due to the unlikelihood of indoor aquatic facilities being constructed in towns with populations less than that amount.

Table 7-10: Illustrative whole-of-economy impacts – Net Present Value (Option A)

Building Type	PV Benefits	PV Costs	Net Benefits	Benefit Cost Ratio
Shopping centres (>10,000 m ²)	\$163,747,755	\$9,113,399	\$154,634,356	18.0
Museums	\$4,017,786	\$1,306,110	\$2,711,676	3.1
Stadiums	\$4,209,345	\$996,768	\$3,212,577	4.2
Public aquatic facilities	\$22,226,290	\$6,049,351	\$16,176,940	3.7
Total	\$194,201,176	\$17,465,628	\$176,735,548	11.1

Notes:

1. Present Values have been calculated over a ten year period for both costs and benefits using a real discount rate of 7%.
2. Whole-of-economy values are derived by multiplying the estimated benefits per trip and break-even points from the case studies by the assumed number of buildings of each type expected to be developed over the next 10 years.

7.3 Regulatory Burden

In line with the best practice regulation principles we have calculated the estimated regulatory burden as follows:

- ▶ Costs are presented over a 10-year duration of the regulation.
- ▶ The Commonwealth’s share of regulatory burden is assumed to be one-ninth of the total cost.

As stated previously, the results provided above implicitly assume that the burden of construction will fall on the developers - i.e. that the builders/developers of a shopping centre will themselves fund the addition of an AACF as was the case when SASFs were mandated. In other words, under the regulatory option the burden of regulation is assumed to fall entirely on the business sector.

Table 7-11: Average annual regulatory burden (from business as usual)

Change in Costs	Business	Community Organisations	Individuals	Total Change in Cost
Regulatory Option A – co-located	\$2,512,761	\$0	\$0	\$2,512,761
Regulatory Option B – Separate	\$8,911,764	\$0	\$0	\$8,911,764
Regulatory Option C – Changing Places	\$15,948,878	\$0	\$0	\$15,948,878

End user consultation findings

All participants interviewed were highly supportive of, and advocated for, the installation of AACFs. They were also pragmatic, indicating that AACFs should be installed wherever possible and practicable to do so, and that a ‘five star’ facility was not necessarily needed. They also indicated that there may be alternatives to some aspects, such as potentially using wall-mounted, height-adjustable change tables as an alternative to ceiling hoists.

Consultation questions

- ▶ Do you agree with the preliminary finding that AACF be provided in Class 6 shopping centres larger than 10,000m² and Class 9b assembly buildings?
- ▶ Should an AACF be allowed to be counted as an SASF?
- ▶ Should an AACF be allowed to be counted as an SASF only where there is at least one other SASF provided in its own right?

Stakeholder feedback

There was general agreement with the preliminary finding that an AACF should be provided in Class 6 shopping centres larger than 10,000m² and Class 9b assembly buildings. However, caveats by some responses such as those provided by Shoalhaven City Council, TfNSW, the Australasian Railway Association and disability advocates

included reducing or removing the 10,000m² threshold, excluding rail stations and including Class 9a major hospitals.

Responses were roughly split between agreement and disagreement on the counting of AACFs as SASFs. TfNSW, Shoalhaven City Council and some disability advocates generally expressed some level of support and the Victorian HHSBA, the Department of Social Services, the Australasian Railway Association and some disability advocates expressed some level of opposition to the merged categorisation.

Key reasons for counting AACFs as SASFs included ease of managing space, site constraints for venue owners as well as reduced cost. Responses that were of the view that AACFs could be counted as SASFs caveated this position with the importance of functional user testing of AACFs to ensure the peninsula toilet did not exclude a proportion of people with disability from use of the facility. Responses that disagreed noted the separate purposes and user groups of SASFs and AACFs, and the need for access to AACFs to be actively managed to prevent misuse. For the reasons described in Section 7.2.4 it is considered AACFs meeting minimum requirements should be allowed to be co-located with SASFs. It is noted that this change will also reduce the financial and economic costs of AACFs while still addressing the defined problem.

Responses diverged on the issue of counting AACFs as SASFs where there is at least one other SASF provided in its own right. Organisations who provided responses to Question 15 in some cases changed their position. Reasons noted for disagreement included the average length of time using a AACF being greater than that of a SASF, the separate purposes of SASFs and AACFs, and the need for access to AACFs to be actively managed to prevent misuse. Responses in agreement commonly caveated their position with the importance of ensuring the peninsula toilet did not exclude a proportion of people with disability from use of the AACF.

The revised specification clarifies AACFs that meet minimum requirements will be categorised as SASFs. This revision negates the need to consider if AACFs should be allowed to be counted as SASFs only where there is at least one other SASF provided in its own right.

8. Summary

8.1 Implications of the analysis

The analysis indicates that the co-location option, where at least one standard accessible facility is provided, reduces the overall costs and delivers a greater level of benefit relative to the other options. While the limitations of the analysis of the case studies are acknowledged, it is considered that they establish the merits and are suitably representative to inform thresholds to the extent feasible for Class 6 shopping centres and Class 9b assembly buildings.

There are a range of considerations associated with amending the Premises Standards and the NCC to require AACFs to be provided in Class 6 shopping centres and Class 9b assembly buildings. This section discusses a few such considerations.

8.1.1 What will trigger the requirements?

As discussed in Section 7.2.1, the imposition of a threshold is considered necessary in order to ensure small buildings are not unfairly required to build a facility that would see little usage and may impact on their financial viability. It is recommended that the requirements be as follows:

- ▶ The installation of an AACF is required for new shopping centres or redevelopments with a design occupancy greater than 3,500.
- ▶ The installation of an AACF is required for all new museums with a design occupancy greater than 1,500.
- ▶ The installation of an AACF is required for all new theatres, with a design occupancy greater than 1,500.
- ▶ The installation of an AACF is required for all new stadiums with a design occupancy greater than 35,000.
- ▶ The installation of an AACF is required for all new indoor aquatic facilities where the main swimming pool area's perimeter exceeds 70m (sufficient to capture a 25m swimming pool and above).
- ▶ The installation of an AACF is required for all new airports or airport redevelopments.

8.1.2 Unintended consequences

At the proposed thresholds and being applicable to prospective developments only, it is not anticipated that the proposed regulation would generate many unintended consequences. One potentially noteworthy unintended consequence would be the potential for the requirements to capture smaller buildings, or potentially even buildings of other classifications. The former issue is intended to be treated, to the extent possible, by the imposition of minimum thresholds as described in Section 7.2.1. The latter is a definitional issue of the respective building classifications and is outside the scope of this RIS.

End user consultation findings

All participants were also adamant that entry to the facilities should be restricted through a key card access system to help reduce vandalism, ensure the cleanliness and hygiene of the facilities, and minimise the possibility of them being used as places for the homeless to sleep, used for illicit purposes, and others to largely abuse and destroy, all of which further reduces access and inclusivity for people with complex disability.

“I visited three of them [Changing Places facilities] a few weeks ago to assess their suitability for [my son], but I would NOT have used any of them they were so filthy, unhygienic, and not maintained. They were just open to everyone to abuse ...”
(Mother, VIC).

Consultation questions

- ▶ What do you consider to be the policy implications of these findings?
- ▶ Do you agree that AACFs should be mandated for shopping centres with a design occupancy in excess of 2000 people?
- ▶ Should AACFs be mandated for museums and stadiums? If so, what should the ‘cut-off’ thresholds be for incorporation into the NCC?
- ▶ Are there any other thresholds apart from design occupancy/seating capacity that could be used to trigger the requirement for an AACF?

Stakeholder feedback

A wide variety of responses were provided covering topics such as the need to control access to AACFs to prevent misuse and this control conflicting with various accessibility requirements, the inclusion of AACFs in public buildings meeting the requirements and/or intent of published government strategies and plans, and the perceived lack of feasibility of implementation at rail stations. TfNSW discussed the key challenges in establishing and operationalising the policy in the form of a two-step process and concluded:

“The activities outlined above represent considerable investment of budget and resource that sit over and above the assessed costs to build and maintain an AACF as represented in the RIS. Further, consideration may need to also be made for the potential perverse outcome and policy decision to not include any toilet facilities for customer use in transport environments as provision of these requirements are costly to install and maintain in existing sites where demand is low.”

9. Conclusions

The findings of this Final RIS support the proposal that the NCC and Premises Standards be amended to require co-located AACFs for the following building types:

- ▶ Class 6 shopping centres with a design occupancy in excess of 3,500.
- ▶ Class 9b buildings where installation of an AACF is warranted include museums, theatres and art galleries with design occupancy greater than 1,500, indoor aquatic facilities with a main swimming pool area perimeter greater than 70m, stadiums with design occupancy (seating capacity) greater than 35,000, and new airports and airport redevelopments.

Owing to a range of other barriers to public transport usage unrelated to toileting needs, and a wide disparity in the types and likely usage of public halls, it is not recommended that AACFs be mandated in public transport buildings or public halls.

This recommendation reflects new analysis accounting for a revised specification and the views expressed by stakeholders and the public over two rounds of consultation during interviews with end users, and in response to the Consultation RIS. While the limitations of the quantitative analysis are acknowledged, it is considered that it demonstrates a clear economic case for delivering increased equity, dignity and social activation for some of the most disadvantaged members of society. Owing to the broad spectrum of qualitative benefits described in this Final RIS, it is also considered that the quantified benefits represent a lower bound estimate of the full economic and social benefits that will accrue.

Finally, it is considered that that the economic and social benefits from a greater uptake of AACFs would be distributed across society due to increased participation from those directly affected, as well as those around them including their carers and family members.

Appendix A Modelling assumptions

This Appendix details the range of assumptions necessary to estimate the value of additional trips.

Distance, travel time and value of time

Assumptions regarding the estimated distance travelled and the time taken to make each trip are provided below. The same parameters have been assumed for each option.

The cited distance travelled and duration assumptions that have been selected are deliberately conservative. They have been selected as they are robust estimates available and to ensure results are not over-estimated given the proximity of an end user to a potential facility cannot be known. Thus, it is acknowledged that they may not be representative of extremes in regional, rural and remote areas; equally, these do not reflect travel times during peak travel times in urban areas.

Table A-1: Distance travelled and travel time assumptions

Case study	Distance travelled	Duration	Cost of travel	Value of leisure time
All case studies	15 kilometres (Note 1)	20 minutes (Note 2)	0.66 (Note 3)	\$9.77 per hour (Note 4)

Note 1: Page 110 of the "State of Australian Cities 2014-2015" report states that the length of an average metropolitan trip across Australia's four largest cities is 7.5 kms per trip (https://infrastructure.gov.au/infrastructure/pab/soac/files/2015_SoAC_full_report.pdf).

Note 2: In Australia most built-up areas have speed limits of 50 km per hour (except NT which has 60 km per hour). At this speed it would take 18 minutes to travel 15 kms. Traffic lights in Australia typically take 50 - 150 seconds to complete an entire cycle. (<https://www.driverknowledgetests.com/resources/traffic-lights-australia/>). Assuming half that time is spent at a red light (25 - 75 seconds), we will assume 60 seconds at every red light. Further assuming that motorists stop at two red lights during the average return trip, trip duration is estimated at 20 minutes.

Note 3: ATO allowance rate per km for travel costs.

Note 4: Guidance from the OBPR states that "when quantifying regulatory costs to individuals, the default value of an individual's time while not in paid employment (such as during leisure time) should be valued at \$31 per hour" (https://www.pmc.gov.au/sites/default/files/publications/individuals-guidance-note_0.pdf).

The maximum basic rate of Disability Support Pension is \$407 per week (<https://www.humanservices.gov.au/individuals/enablers/payment-rates-disability-support-pension>).

This is 31.5% of the average weekly earnings for full and part-time workers in 2017 (<http://www.abs.gov.au/ausstats/abs@.nsf/mf/6302.0>). 31.5% of \$31 is \$9.77.

Design occupancy, floor space and visitation

The variables that most affect the results are those relating to the size and the annual visitation of the building in question. It is the latter variable that then affects the estimated number of people in the core cohort who might be inclined to visit the building as a result of an AACF being provided.

Overall visitation

The assumptions below have been made based on the following overarching principles:

- ▶ The size and visitation is broadly consistent with actual buildings within the same category. This was done based on a desktop review of publicly available data pertaining to shopping centres, museums and stadiums.
- ▶ The parameter values are broadly 'reasonable' in the sense that it is reasonable to expect similar size buildings might be constructed over the coming decade.

Due to data limitations and the sole use of the break-even method, design occupancy and floor space assumptions were not required for the airport and public aquatic facility case studies.

Table A-2: Design occupancy, floor space and visitation assumptions

Building type	Design occupancy	Floor space	Annual visitation
Major shopping centre	13,000 (Note 1)	130,000 (Note 2)	15 million (Note 2)
Smaller shopping centre	4,500 (Note 1)	45,000 (Note 2)	7 million (Note 2)
Museum	(Note 3)	(Note 3)	(Note 3)
Stadium	35,000 based on seating capacity (Note 4)	Not applicable	600,000 (Note 5)
Airport	Not applicable	Not applicable	Various (Note 6)
Public aquatic facility	Not applicable	Not applicable	90,694 (Note 7)

Note 1: Design occupancy for major shopping centres is calculated on the basis of total floor space divided by 5. In order to obtain design occupancy on a 'per level' basis this figure is divided by 2 again (assuming 2 levels for a shopping centre). This is based on Table D1.13 of the NCC.

Note 2: Floor space and visitation assumptions are made on the basis of publicly available data from around 60 shopping centres throughout Australia. It is assumed that annual visitation is a function of the overall floor space of the building. The major shopping centre is intended to reflect a large, iconic shopping centre in a major city, while the smaller

shopping centre is intended to represent a suburban shopping centre which can be found in most medium sized regional towns throughout Australia.

Note 3: A discernible relationship between floor space/design occupancy and annual visitation is difficult to establish. This creates challenges for the RIS because the prospective number of visitors from the core cohort is linked to overall visitation (which in turn is linked to ‘catchment’ population).

Note 4: Selected on the basis of known stadium investment projects in the current year (both greenfield and re-developments).

Note 5: Calculated as (roughly) the average visitation of 5 stadiums across Australia with capacity of between 25,000 and 40,000 people.

Note 6: the airport case study has been considered on the basis of patronage through a range of small, medium and large airports across Australia, sourced from BITRE aviation statistics.⁹²

Note 7: Calculated as Australia’s population multiplied by an estimate of average visits per year, divided by an estimate of Australia’s total public aquatic facilities. Four average visits per person per year is a conservative adjustment of the 4.4 visits source figure. The estimate of Australia’s total public aquatic facilities is equal to the source figure.⁹³

Defining the ‘catchment’ population

Having estimated the overall number of visitors, the next step is to estimate the potential number of visitors with a complex disability (noting the implicit assumption here that annual visitation is representative of the overall ‘catchment’ population of each case study).

The first step is to convert the overall visitation figures noted above into unique visitors – i.e. the number of individual people who enter a building over a year, irrespective of how many times they go. The potential number of people with a complex disability within the ‘catchment’ population is then estimated by multiplying the number of unique visitors by the estimated disability rate of 1.5% (refer Section 5.1).

Table A-3: Estimating the ‘catchment’ population

Building type	Total annual visitation	Average visits per year	Unique visitors per year (Note 2)	Potential ‘catchment’ population (Note 3)
Major shopping centre	15 million	34.8 (Note 1)	431,034	6,479
Smaller shopping centre	7 million	34.8 (Note 1)	201,149	3,023
Museum	1 million (Note 4)	2.5 (Note 5)	392,698	5,903
Stadium	600,000 (Note 6)	4 (Note 7)	150,000	2,255
Airport (Note 8)	5 million	0.22	Not applicable	Not applicable

⁹² <https://bitre.gov.au/statistics/aviation/>.

⁹³ Barnsley, P. Peden, A. Scarr, J. (2017) Economic Benefits of Australia’s Public Aquatic Facilities, Royal Life Saving Society – Australia, Sydney.

Building type	Total annual visitation	Average visits per year	Unique visitors per year (Note 2)	Potential 'catchment' population (Note 3)
		(Note 9)		
Public aquatic facility (Note 10)	90,694	4.0 (Note 11)	Not applicable	Not applicable

Note 1: The International Council of Shopping Centres has estimated that on average people visit shopping centres 2.9 times per months (34.8 per year).⁹⁴

Note 2: Annual visitation/average visits per year for shopping centres, museums and stadiums.

Note 3: Unique visitors per year x disability rate (1.5%) for shopping centres, museums and stadiums.

Note 4: Selected as equivalent to the median visitation of 13 museums around Australia.

Note 5: Weighted average number of trips per year to museum from ABS 4114.0.

Note 6: Equivalent to the average annual attendance at The Gabba, Suncorp Stadium, Sydney Football Stadium, Hunter Stadium, Melbourne Rectangular Stadium, and Canberra Stadium.

Note 7: EY assumption. It is assumed that people with a propensity to go to a stadium in the first place will be those who are likely to make multiple trips.

Note 8: The airport case study uses total annual visitation, the core cohort percentage of the total population and an estimate of persons with disabilities' propensity to travel per year have been used to determine the potential 'catchment' population.

Note 9: Based on data that shows 22% of people with disability recall taking an overnight trip in the past three months⁹⁵. Sensitivity around this assumption is provided in Section 7.2.8.

Note 10: EY assumption. The public aquatic facility case study uses a range of feeder population estimates determined by EY.

Note 11: Four average visits per person per year is a conservative adjustment of the 4.4 visits source figure.⁹⁶

⁹⁴ JCDecaux, The Mall Phenomenon, <http://www.jcdecauxna.com/sites/default/files/assets/mall/documents/studies/MallPhenomenon.pdf>.

⁹⁵ Dwyer, L. Darcy S. (2008) The Economic Contribution of Accessible Tourism to the Australian Economy (p.27).

⁹⁶ Barnsley, P. Peden, A. Scarr, J. (2017) Economic Benefits of Australia's Public Aquatic Facilities, Royal Life Saving Society – Australia, Sydney.

Number of trips, and entry fees

How many 'additional' trips will be made due to AACFs?

The estimated number of people with a complex disability who will actually go to a shopping centre, museum or stadium from a 'catchment' population now needs to be refined.

In this regard, there are two types of visitor; those who already go to shopping centres, museums or stadiums, and those who do not. Due to data limitations for airports and public aquatic facilities, it was assumed that new AACFs are installed only in areas not currently serviced by such facilities. Therefore, all trips for an airport or public aquatic facility would be additional. These additional trips would meet the propensity to travel for people with disability for airports, and the average visits per year for public aquatic facilities.

For shopping centres, a relatively straightforward assumption is made that all those with a complex disability who reside close enough to the shopping centre will make additional trips to the centre. This assumption was verified through the consultation process.

The next step is then to estimate the number of 'additional' trips each person might make. The consultation process indicated that this figure might be considerable. However, in the absence of independent verification, we have opted to make a conservative assumption that each person with a complex disability located in the 'catchment' population of a shopping centre will make one additional trip as a result of the provision of an AACF. As noted above, this is deliberately conservative.

For museums and stadiums the process is more complicated, because it cannot simply be assumed that 'all' people within a certain distance of the building will attend – only those who are interested in sporting events and museums will attend. Similarly, it cannot be assumed that only people within a certain distance would attend (see Note below). Thus, further adjustments need to be made to the estimated 'catchment' population, by accounting for the share of people with a complex disability who indicated that they would like to leave home more often; as well as the share who indicated that they have actually visited museums or stadiums in the past 12 months. Both of these proportions have been taken from the SDAC.

For museums it is assumed that people in the 'adjusted catchment' population would make an additional half a trip each (or more accurately, half of the people will make an additional trip per year). For stadiums it is assumed that people would make an additional 4 trips per year, on the grounds that people making trips to a stadium would be supporting the home team, and thus would want to see more than one match a year. As noted above these assumptions and adjustments are deliberately conservative.

The specific assumptions regarding the number of 'additional' trips and the parameters described above are presented in Table A-4, and sensitivity testing is conducted in Chapter 7.

Note: A major limitation of basing assumed 'catchment' population for stadiums and museums on the size of the local population is that it does not account for the people who

willingly travel significant distances to see a specific game or event, for example a finals game or a one-off art exhibition that is only staged in one city.

Table A-4: Refining the ‘catchment’ population

Building type	Potential visitors from core cohort	Share of cohort who would like to leave home more often	Share of cohort who have visited particular events	Adjusted ‘catchment’ population	Additional trips per year due to AACF
Major shopping centre	6,479	N/A	N/A	N/A	1
Smaller shopping centre	3,023	N/A	N/A	N/A	1
Museum	5,903	63%	45%	1,638	0.5
Stadium	2,255	63%	12%	175	4

Entry fee

The specific assumptions made and an overview of the justification behind each assumption is provided in Table A-5.

Table A-5: Assumed entry fee and spending, museums and stadiums

	Average ticket price
Museums and art galleries	\$10 (Note 1)
Stadium	\$24 (Note 2)

Note: Assumed entry fee for museums applies also to art galleries.

Note 1: Some museums charge an entry fee and others do not. \$10 is selected as an average, conservative assumption. The deliberate conservative bias of this assumption is acknowledged.

Note 2: Average ticket price for 6 medium stadiums with capacity broadly in line with expected stadium elements looking forward; The Gabba, Suncorp Stadium, Sydney Football Stadium, Hunter Stadium, Melbourne Rectangular Stadium, and Canberra Stadium.

Time period of the analysis

A projection period of ten years for both costs and benefits has been assumed for the analysis – that is, every prospective development (and case study) is estimated to incur costs and receive benefits for ten years. It is acknowledged that this timeframe is shorter than the ‘standard’ assumption of 40 years for benefits.

The reason for including a shorter than normal timeframe for measuring the benefits is that this analysis relies on the fact that AACFs at the thresholds suggested would encourage additional visitation by people with a complex disability to a shopping centre, museum or

stadium where one was installed (noting, of course, that the reason for the additional visitation is first and foremost the attraction of the place, not the facilities).

Beyond ten years, there is likely to be an element of diminishing marginal returns in the benefits from new facilities. As AACFs become more common, the number of new trips made to Class 6 shopping centres and Class 9b assembly buildings as a result of AACFs (which comprise the quantifiable benefits considered in this Final RIS) would be expected to decline with each new facility installed. On the other hand, the vast array of qualitative benefits through improved social equity, cohesion and psychological wellbeing of people with a disability, would be expected to increase with the number of facilities.

In other words beyond ten years, the qualitative benefits are expected to become more pronounced while the quantitative benefits become less so, meaning quantification was not considered appropriate beyond this timeframe.

Consultation questions

- ▶ Is the assumption that every visitor makes a 15 km round trip, and that this trip takes 20 minutes, a reasonable assumption? Are you able to suggest an alternative assumption?
- ▶ Do you agree with the assumptions regarding the number of 'additional' trips to shopping centres, museums and stadiums as a result of AACFs being introduced (1 for shopping centres, 0.5 for museums, and 4 for stadiums)? Are you able to suggest an alternative assumption?
- ▶ Do you agree with the assumptions regarding the estimated entry fee and additional spending for museums and stadiums? Are you able to suggest an alternative assumption?

Stakeholder feedback

- ▶ There was a general consensus that every visitor making a 15 km round trip with a duration of 20 minutes was reasonable. It was noted this assumption may not be representative of regional, rural and remote areas or trips taken in urban areas during peak travel times. The Shoalhaven City Council noted that for regional dwellers, a 60 km round trip may be more reasonable and for rural dwellers an estimate of 150 km might be more realistic. While it is acknowledged that in regional areas the estimated travel times may be higher and incur increased time and cost, these would be dominated by the average of all trips and the analysis retains the assumptions in their current form; if the benefits outweigh the costs at a travel assumption of 20 km, then the benefits will be four times as large with a travel time assumption of 60 km.
- ▶ While some responses noted this assumption was appropriate, multiple responses including those from the Victorian HHSBA, a representative of the Association of Consultants in Access Australia and disability advocates were of the view that the additional trip factors used underestimated the additional trips that will result from the introduction of AACFs with literature and studies on accessible tourism provided.

- ▶ While some responses noted this assumption was appropriate, multiple responses were of the view that additional entry fees and spending was underestimated with literature and studies on universal design and accessible tourism provided by the Victorian HHSBA and a disability advocate.

Appendix B Assumed building profile

Table B-1: Assumed number of buildings constructed, regulatory and non-regulatory scenarios

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Shopping centres										
Total floor space (sqm) - Regulatory										
<10,000	149	150	150	149	150	150	149	150	150	150
10,000-25,000	31	32	23	34	36	31	31	32	31	31
25,000-50,000	34	36	22	37	41	34	35	35	34	35
50,000-75,000	5	5	3	5	7	5	5	5	6	5
75,000-100,000	5	5	3	5	7	5	5	5	6	5
100,000 plus	5	5	3	5	7	5	5	5	6	5
Total floor space (sqm) – Non-regulatory										
<10,000	90	90	90	90	90	90	90	90	90	90
10,000-25,000	19	19	14	20	22	19	19	19	19	19
25,000-50,000	20	22	13	22	25	20	21	21	20	21
50,000-75,000	3	3	2	3	4	3	3	3	4	3
75,000-100,000	3	3	2	3	4	3	3	3	4	3
100,000 plus	3	3	2	3	4	3	3	3	4	3
Museums										
Regulatory	0	9	13	4	0	0	3	3	3	3
Non-regulatory	0	5	7	2	0	0	1	1	1	1
Stadiums										
Regulatory	0	10	4	3	2	2	2	2	2	2
Non-regulatory	0	6	2	1	1	1	1	1	1	1
Swimming Pools										
Regulatory	18	18	18	20	16	18	17	17	17	17
Non-regulatory	10	10	10	12	9	10	10	10	10	10

Note: construction profile is based on IBIS World estimates for museums and stadiums, and shopping centres over 10,000m². For shopping centres the profile includes renovations and additions and has been informed by information provided by the Shopping Centre Council of Australia. Swimming pool development has been estimated by assuming the number of swimming pools Australia wide grows in line with population.

Appendix C Consultation approach

A balanced RIS consists of both primary and secondary data analysis, which allows for a more complete understanding of the proposed regulatory amendment.

Primary data collection involved consulting with individuals who have a disability, carers, parents of a person with disability, a care group and a disability peak body to obtain insights into the attitudes, perceptions and ideas about AACFs from an “end users” perspective. In addition to this, the availability and suitability of the facilities was explored, along with the perceived benefits and challenges of accessing and using such facilities.

Target audience

Insights were obtained through a series of in-depth and paired interviews, and small group discussions with 10 people, including:

- ▶ Four (4) people with a disability (spinal cord injury, head injury, encephalitis)
- ▶ Two (2) parents of teenagers and young adults with a disability (cerebral palsy)
- ▶ Three (3) care group representatives, including the Manager, disability accommodation services, the holiday co-ordinator and one of the carers
- ▶ The CEO of a disability peak body (and life time wheelchair user).

The location of research participants is outlined in the table below:

Table C-1: Location of research participants

Location	Number of Interviews			Total
	People with Disability	Parents / Carers	Care Group / Peak Body	
New South Wales	1	1	1	3
Victoria	1	1	N/A	2
Western Australia	2	1	2	5
Total	4	3	3	10

Interviews and small group discussions

Each session lasted between 30 minutes and one and a half hours, and involved face to face and telephone interviews with one or more participants, as well as a small group discussion.

Recruitment strategy

Participants in the qualitative research component were recruited through a respected well known individual with extensive industry sector knowledge. This individual introduced us to organisations, through who the final participants were recruited.

Research instruments

A discussion guide was developed for use in both the one-on-one interviews and small group discussions.

The key areas of enquiry covered in the guide related to the primary objectives of the RIS, as well as the identification of potential opportunities for improvement. The following table provides an outline of the key questions.

Table C-2: Key questions

Issue	Key questions
Background and activities	<ul style="list-style-type: none"> ▶ Could you tell us about you? ▶ Do you like to go out, and if so where do you go and what do you do? ▶ How important is it for you to be able to go out? ▶ Overall, what are the biggest barriers for you to going out?
Going out	<ul style="list-style-type: none"> ▶ When you decide to go out, what planning do you have to do? ▶ Is there anything that you need to be mindful of when you go out, and if so what? ▶ Is there anything that you worry about when you go out? ▶ Is it important for you to be able to access a public bathroom when you go out?
Change facilities	<ul style="list-style-type: none"> ▶ Have you ever come across or heard of the “Changing Places” facility? ▶ What is your understanding of how they work? ▶ Have you actually used one? ▶ If respondent had not accessed a change facility: <ul style="list-style-type: none"> ▶ What difference do you think a facility like this could make to you? ▶ What are the possible benefits and drawbacks? ▶ If a facility like this was located in your local shopping centre or some other public facility, do you think you might go there more often?
Opportunities for improvement	<ul style="list-style-type: none"> ▶ If you were ‘boss for the day’, what would you do to make it easier for you and others to go to shopping centres and other public places? ▶ Finally, is there anything that you would like to add about public facilities?

These questions were modified to suit the care group and CEO from the disability peak body.

Ethics exemption

An application for ethics exemption was lodged with the Queensland University Human Research Ethics Committee. Ethics exemption was approved and received on 16 November 2017 (Approval number 2017001810).

Appendix D International comparisons

There is international precedent for introducing changes to building regulations based on issues identified for accessing AACFs. A Canadian research paper on exploring the barriers to shopping mall use by people with disabilities, from the perspectives of people with disabilities, rehabilitation professionals and shopkeepers⁹⁷, provides a multi-perspective assessment of the usability. The report also comments on the environmental facilitators and obstacles to social participation in shopping malls. From the perspective of a rehabilitation professional:

“[Toilets] are often located at the far end of a hallway. It’s cramped, it’s not sure that someone with a wheelchair can really get in. There’s not always a raised toilet seat or a support bar. The sink is not at the right height...”

To address such concerns, various countries have introduced standards or guidelines for the provision of AACFs, namely in the United Kingdom, Canada and the US (California). These are summarised below.

United Kingdom

Internationally, the UK is the only country that provides a precedent for non-regulatory solutions driving the uptake of AACFs. Specifically, the British Standard (BS) 8300 provides detailed guidance relating to the provision and design of Changing Places toilets. It recommends (but does not mandate) that Changing Places facilities should be provided in larger buildings and complexes with public access or where visitors are likely to spend a large period of time. The Changing Places website⁹⁸ reports that so far, over 1000 toilets have been registered in the UK, with a further 100 venues providing AACFs that include some but not all the requirements of a Changing Places specified facility.

While there is no funding available specifically for Changing Places facilities, some venues in the UK have obtained funding from various sources to build facilities depending on what type of organisation they are or where they are located.

There are ongoing calls in the UK for BS 8300 to be upgraded to mandate the provision of AACFs on the grounds that the current uptake is deemed insufficient to cater for the country’s disabled population.⁹⁹ The matter was raised in the House of Commons on the 13th of December 2017, receiving a positive response from the Prime Minister, the Hon Theresa May MP.¹⁰⁰

The individual countries of the United Kingdom each have their own technical documents providing further guidance on the desirability (but again not mandating) of providing AACFs in public buildings. Further detail is provided below.

⁹⁷ Swaine, B. et. Al (2013) Exploring the facilitators and barriers to shopping mall use by persons with disabilities and strategies for improvements: Perspectives from persons with disabilities, rehabilitation professionals and shopkeepers, ALTER, European Journal of Disability Research 8 (2014) 217-229.

⁹⁸ Changing Places, <http://www.changing-places.org/>.

England

In England, Approved Document M (Access to and use of buildings (AD M) 2013 edition) Section 5 refers to the provision of sanitary accommodation and Changing Places facilities in larger buildings. Section 5.6 states that in large building developments, separate facilities for baby changing and an enlarged unisex toilet incorporating an adult changing table are desirable (further guidance is provided in Section 12.7 and Annex G of BS 8300).

In addition, Section 5.17 states that in large building complexes, such as retail parks and large sports centres, there should be one wheelchair accessible unisex toilet capable of including an adult changing table.

Scotland

In Scotland, Technical Handbook 2013, Section 3.12 – ‘Sanitary facilities’ acknowledges Changing Places toilets as best practice and includes recommendations for a network of these facilities, as follows:

“A CPT is provided where the building owner chooses to do so and their installation represents best practice. There are many building types best suited for CPT installations including publicly accessible facilities such as shopping malls, entertainment or assembly buildings and transport related facilities. Provision of CPTs within suitable buildings is important to establish a network of facilities at appropriate locations across the country.”

Northern Ireland

In Northern Ireland, Technical Booklet R 2012 – ‘Access to and use of buildings’, Section 6, ‘Sanitary accommodation’ covers the provision of sanitary and changing facilities in dwellings and non-domestic buildings.

In addition, Appendix A, includes the following recommendation for Changing Places facilities:

“People with profound and multiple learning disabilities, who require the help of up to two assistants, need a facility that is a combined toilet, shower and changing room. Such facilities require extra space to accommodate people, often using large wheelchairs having elevated leg rests, a reclining facility or integral oxygen cylinders, and space to fit slings for use with a hoist. It also needs to be possible for a wheelchair to remain within the facility when not in use without compromising the safe access and use of the equipment. A Changing Places toilet includes such extra space and facilities.”

Canada (Ontario)

In 2013, Ontario Regulation 368/13 was filed to amend the new 2012 Building Code, O.Reg. 332/12. The effective date of the amendment was 1 January 2015. At least one universal toilet room is required in all buildings, and, for multi-storey buildings, at least one for every three floors. Space for an adult change table has to be provided in all universal toilet rooms except in buildings under 300m² in building area.

US (California)

In California, *Assembly Bill No. 662 Public accommodation: disabled adults: changing facilities* was enacted as law on 10 October 2015 as Chapter 742 of the California Codes.¹⁰¹ It added Section 19952.5 to the Health and Safety Code that included the following text:

- (a)** A person, private firm, organization, or corporation that owns or manages a commercial place of public amusement shall install and maintain at least one adult changing station for persons with a physical disability that is accessible to both men and women when the facility is open to the public, if either of the following occur:
- (1)** The commercial place of public amusement is newly constructed on or after January 1, 2020.
- (2) (A)** When an existing commercial place of public amusement is renovated on or after January 1, 2025, and requires a permit or the estimated cost of the renovation is ten thousand dollars (\$10,000) or more.
- (B)** A commercial place of public amusement with an enclosed restroom facility or other similar private facility with an adult changing table in use before January 1, 2025, shall be deemed to comply with this paragraph.
- (b)** A facility shall ensure that the entrance to each adult changing station has conspicuous signage indicating the location of the station, and, if the facility has a central directory, shall ensure that the central directory indicates the location of the adult changing station.¹⁰²

¹⁰¹ State of California (2015) https://leginfo.legislature.ca.gov/faces/billStatusClient.xhtml?bill_id=201520160AB662.

¹⁰² State of California (2015) https://leginfo.legislature.ca.gov/faces/billCompareClient.xhtml?bill_id=201520160AB662.

Appendix E Consultation questions

The following consultation questions were included in the Consultation RIS, prior to the release of this Final RIS.

Note: These questions were provided as a guide and to stimulate discussion. It was not mandatory to address each and every question. Respondents were welcome to comment on these questions or on any other aspect of the Consultation RIS.

- 1: Is the selection of the types of Class 9b assembly buildings considered appropriate?
- 2: Do you consider that the case studies selected are representative of the types of buildings likely to be constructed over the next 10 years?
- 3: Do you agree with the process described in Section 4.1 to estimate the core cohort of people with a complex disability? If not, can you suggest an alternative method?
- 4: Do you agree with the inclusion of the 22,372 people with a disability and profoundly or severely limited in core activities who do not leave home in the core cohort?
- 5: Do you agree with the description of the problem given in Section 2?
- 6: Are there any other characteristics of the problem that should be included in the analysis?
- 7: Is the currently defined population (see Section 4) appropriate for the analysis?
- 8: Are the cost estimates applied in this analysis appropriate and reasonable?
- 9: Are there any additional establishment and maintenance costs that should be considered?
- 10: As a person with a disability or carer, how do you think you will benefit from the introduction of AACFs?
- 11: How will the introduction of AACFs in Class 6 shopping centres and Class 9b assembly buildings impact on your level of community engagement and sense of inclusion in daily life and community activities?
- 12: How will the introduction of AACFs in Class 6 shopping centres and Class 9b assembly buildings impact on your overall quality of life? Please indicate if this would differ under:
 - Option A

- ▶ Option B
- ▶ Non-regulatory option
- ▶ Co-location

13: Are there other types of qualitative benefit that should be considered?

14: Do you agree with the preliminary finding that an AACF be provided in Class 6 shopping centres larger than 10,000m² and Class 9b assembly buildings?

15: Should an AACF be allowed to be counted as an SASF?

16: Should an AACF be allowed to be counted as an SASF only where there is at least one other SASF provided in its own right?

17: What do you consider to be the policy implications of these findings?

18: Do you agree that AACFs should be mandated for shopping centres with a design occupancy in excess of 2000 people?

19: Should AACFs be mandated for museums and stadiums? If so, what should the 'cut-off' thresholds be for incorporation into the NCC?

20: Are there any other thresholds apart from design occupancy/seating capacity that could be used to trigger the requirement for an AACF?

21: Is the assumption that every visitor makes a 15 km round trip, and that this trip takes 20 minutes, a reasonable assumption? Are you able to suggest an alternative assumption?

22: Do you agree with the assumptions regarding the number of 'additional' trips to shopping centres, museums and stadiums as a result of AACFs being introduced (1 for shopping centres, 0.5 for museums, and 4 for stadiums)? Are you able to suggest an alternative assumption?

23: Do you agree with the assumptions regarding the estimated entry fee and additional spending for museums and stadiums? Are you able to suggest an alternative assumption?

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