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Second independent review of the WELS scheme

Final report

June 2015

Aither

A report prepared for the Department of the Environment

The Water Efficiency Labelling and Standards (WELS) scheme is an Australian Government initiative in partnership with state and territory governments.

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Abbreviations

Abbreviation	Meaning
ABCB	Australian Building Codes Board
ABS	Australian Bureau of Statistics
BOM	Bureau of Meteorology
CAB	Conformity Assessment Body
CWCC	China Water Conservation Certification
EPA	United States Environmental Protection Agency
EWL	European Water Label
GL	Gigalitre
GST	Goods and Services Tax
GWA	George Wilkenfeld and Associates
ISF	Institute for Sustainable Futures
JAS-ANZ	Joint Accreditation Service of Australia and New Zealand
kL	Kilolitre
LRMC	Long-run marginal cost
MJA	Marsden Jacob Associates
ML	Megalitre
MWELS	Mandatory Water Efficiency Labelling Scheme (Singapore)
NATA	National Association of Testing Authorities
NPV	Net present value
NWC	National Water Commission
NWI	National Water Initiative
PPIG	Plumbing Products Industry Group
PUB	Public Utilities Board (Singapore)
SCEW	Former Standing Council on Environment and Water (SCEW)
WEAP	Water Efficiency and Plumbing Group
WELS	Water Efficiency Labelling and Standards
WELSAC	Water Efficiency Labelling and Standards Advisory Committee
WELSAG	Water Efficiency Labelling and Standards Advisory Group
WELSOG	Water Efficiency Labelling and Standards Officials' Group
WSAA	Water Services Association of Australia

Executive summary

This report presents the findings and recommendations resulting from the *Second Independent Review of the Water Efficiency Labelling and Standards Scheme* (the Review).

Background

The Water Efficiency Labelling and Standards Scheme (WELS Scheme) was established in 2005 with objectives to:

1) conserve water supplies by reducing water consumption
2) provide information for purchasers of water-use and water-saving products
3) promote the adoption of efficient and effective water-use and water-saving technologies.

The WELS Scheme is enabled by the *Water Efficiency Labelling and Standards Act 2005* (Cwlth) (WELS Act 2005). Section 76 of the WELS Act 2005 requires an independent review of the Scheme be undertaken every five years. The first review was completed in 2010, and in November 2014, Tom Mollenkopf was appointed by Senator the Hon. Simon Birmingham (former Parliamentary Secretary to the Minister for the Environment) as the Independent Reviewer to undertake this Review. To assist in the Review, the Commonwealth Department of the Environment (the Department) engaged Aither Pty Ltd as the project support team (Review Team).

The Terms of Reference for the Review require an assessment of the WELS Scheme's appropriateness, efficiency and effectiveness, and the extent to which its administration has met the objects of the WELS Act 2005. The full Terms of Reference are provided at Appendix A.

About the Water Efficiency Labelling and Standards Scheme

The WELS Scheme is a government-administered consumer advisory scheme that ensures water efficiency information (labelling) is provided for certain water-using products supplied across Australia. Products covered include showers, certain tap equipment, flow controllers, toilets, urinals, dish washing machines and clothes washing machines.

The WELS Scheme aims to reduce water consumption by promoting use of more water efficient products. It does this by providing consumers with water efficiency information (specifically a star rating label) at the point of sale. Some products are also required to meet a minimum water efficiency standard, and registration and labelling is mandatory for all products covered by the Scheme.

The Commonwealth Government administers the WELS Scheme on behalf of state and territory governments, industry and the Australian public. Administration includes managing product registrations, maintaining a product database, compliance and enforcement, and other activities. Costs are partly recovered from industry through registration fees, with Commonwealth Government and state and territory governments also contributing – the current cost-recovery target is 80 per cent industry and 20 per cent government. For the 2014–15 financial year, Scheme expenditure is projected to be approximately $1.44 million.

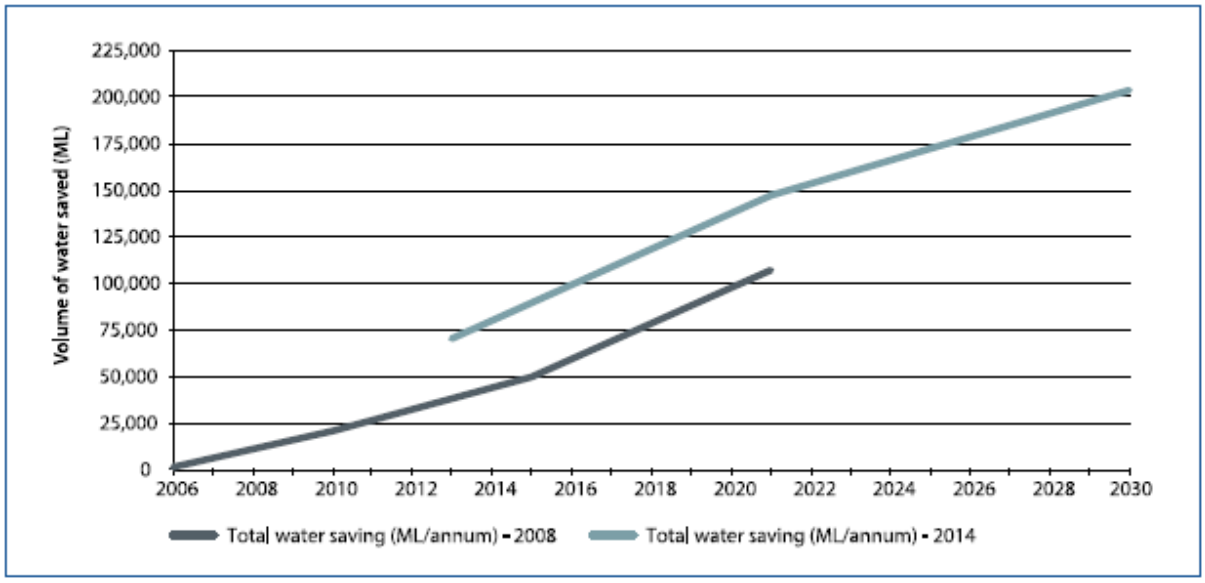
Achievements and benefits

The WELS Scheme has achieved, and is likely to continue to achieve, much in the three main areas it sets out to – specifically reducing water consumption, ensuring water efficiency information is available for consumers, and promoting more water efficient technologies.

Water savings

The WELS Scheme has contributed to observed reductions in water consumption, and the conservation of water supplies across Australia. Modelling undertaken in 2008 and 2014 has estimated the actual and projected extent of water savings resulting from the Scheme (Figure ES1). While the trends are broadly consistent, and increasing, the 2014 estimates are higher, suggesting a saving of approximately 70,000 Megalitres (ML) in 2013, and as much as 204,000 ML could be saved in 2030. Cumulatively, this could potentially total 2,853 Gigalitres (GL) of water saved by 2030.[1] Savings attributable to the Scheme as of 2015 could have an economic value of up to $1.5 billion. If these projections to 2030 are correct, the value of water savings could be as high as $3.3 billion.[2] This means the total economic value of water savings could be as high as $4.8 billion (in 2015 dollars).

Figure ES1. Projections of annual WELS Scheme water savings – 2006 to 2030



Source: ISF 2008 and 2014.

Consumer information

The WELS Scheme provides information to consumers which is highly visible, well-utilised and trusted. Market research suggests that consumers are actively using water efficiency information provided under the Scheme to inform decisions about what products to purchase. Research undertaken in 2014 shows that 87 per cent of consumers recognise the WELS water efficiency label – a 34 per cent increase from data collected in 2008. In addition, 83 per cent of consumers have indicated that they view the WELS Scheme as 'very' or 'quite' credible, and because it is a

[1] As estimated by Institute for Sustainable Futures (ISF) 2014.

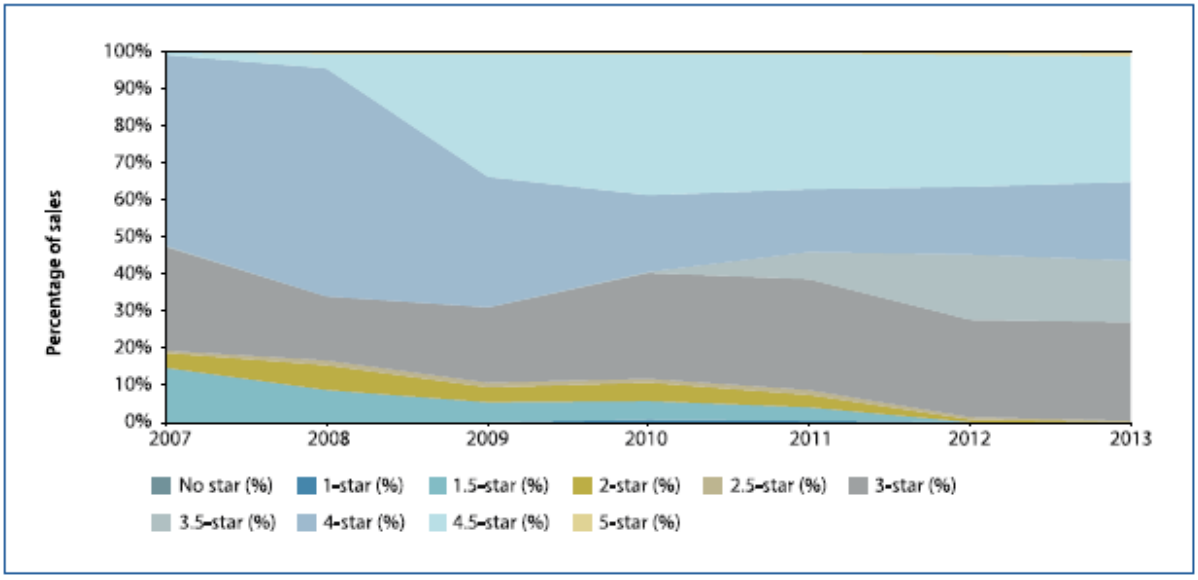
[2] Calculated using a net present value (NPV) calculation based on ISF 2014 cumulative water savings projections and a 6 per cent discount rate over future years.

government-regulated initiative they have confidence in the information provided.[3] Consumers now actively look for and expect to see water efficiency labelling on various types of water-using products.

Adoption of water-saving products

The market research referred to above suggests water efficiency is the highest or second highest consideration for consumers in their purchasing decisions for products covered under the WELS Scheme. This is reflected in a general shift towards both greater availability and sales of more water efficient products since the introduction of the Scheme. Sales of WELS 2.5 star rating and below clothes washing machines have contracted substantially since 2007, at the same time as sales of WELS 3 star and above machines have grown (Figure ES2). Similarly, in 2007, dish washing machines with a WELS 3 star and below accounted for nearly 90 percent of all sales; however, by 2013 these dishwashing machines accounted for less than 20 per cent of all sales.

Figure ES2. Clothes washing machine product sales by star ratings in Australia – 2007 to 2013



Source: ISF 2014.

Further benefits and their distribution

The WELS Scheme also provides a range of other benefits, including:

- a national reference point on which to base other schemes, regulations and policies, reducing the extent of regulatory duplication amongst different state jurisdictions and levels of government
- financial savings for consumers due to reductions in water consumption and associated reductions of electricity or gas use from use of more water efficient products
- deferral of investment in water supply infrastructure.

[3] As estimated by Quantum 2014.

Such benefits accrue to a range of stakeholders who benefit from, or rely on, the WELS Scheme in different ways. These include:

- consumers being able to make more informed decisions, and achieve financial savings resulting from using more water efficient products
- governments benefiting from use of the WELS Scheme for referencing in other programs – including rebate and incentive programs – through avoidance of regulatory duplication and having to establish their own schemes, as well as improved ability to manage water resources in periods of scarcity
- industry having marketing benefits and competitive advantage where manufacturing or promoting highly water efficient products
- society benefiting from the more efficient use, or freeing up of, public resources or revenue – including from greater water availability, and lower cost water service provision due to less need for major investments
- the environment benefiting from water savings that could contribute to environmental improvements and reductions in greenhouse gas emissions.

Costs and other impacts

The achievements and benefits of the WELS Scheme do, however, come at a cost. These include direct and indirect costs imposed on product manufacturers and suppliers, consumers, governments and the community more broadly.

Costs to government and society

State and territory governments, and the Commonwealth Government, contribute annual funding to the WELS Scheme for its operation and administration. While the combined contribution target is 20 per cent of total scheme administration costs, the actual contribution varies over time due to changes in the number of products registered and other factors. Based on estimates provided to the Reviewer, combined contributions to the Scheme from all Australian governments will total $392,000 for the 2014–15 financial year – $196,000 for state and territory governments and $196,000 for the Commonwealth Government. However, past contributions have varied substantially due to changes in Scheme operating arrangements – including registration fee structures and cost-recovery arrangements, and the periodic need for one-off investments.

Direct costs to industry

Product registration fees are the main direct cost for industry, totalling around $1.23 million in 2014–15, with median total registration fee costs approximately $1,700 per registrant. On a per product basis across the total amount registered, the Department will charge approximately $81 per product. Registration fee costs are primarily an issue for manufacturers or importers of WELS Scheme products (registrants), not suppliers. In addition, registrants also incur costs for testing products (estimated at between $500 and $3000 per new product), labelling and the time taken to register and renew products and to ensure compliance.

Cost to consumers

Direct costs borne by product manufacturers or importers are generally passed on to suppliers, who in turn pass this on to consumers in the final price of products. Consumers do not bear any direct

costs of the WELS Scheme, but rather bear those industry costs that can be passed on. These are estimated to be very small on a retail price basis per unit sold, given the low cost of running the Scheme (around $1.44 million in 2014–15) and the high volume sold of many products.

Other costs or impacts

There are additional costs or regulatory burdens resulting from the WELS Scheme, which are borne by industry. These may include costs of additional in-store or online labelling, destroyed or returned stock due to expired product registration, and additional internal procedures and staff training.

Main findings

Appropriateness

The Review finds that the WELS Scheme is broadly appropriate across all core aspects: the Scheme's objectives remain current and relevant; its broad design as a mandatory, national consumer advisory scheme; its administration being provided by the Commonwealth Government; and its current product coverage and approach to minimum efficiency standards generally. However, there are areas for improvement, including in relation to:

- its cost-recovery target, which does not accurately reflect the distribution of Scheme benefits amongst stakeholders
- better managing the indirect costs or regulatory burden imposed on industry by the Scheme – including perverse impacts of some elements of its design or implementation.

Effectiveness

The WELS Scheme has been highly effective in delivering on its objectives. It has contributed, and is expected to continue to contribute, extensively to observed reductions in per capita water use nationally. It provides effective information to consumers that is recognised, utilised and trusted by a large majority, and it has resulted in the adoption of more water efficient technologies. However, there are also areas where its effectiveness could be improved, including in relation to:

- stakeholder engagement mechanisms
- clearing up confusion around potential duplication or linkages between the Scheme and other related schemes
- transparency and reporting
- compliance and enforcement arrangements.

Efficiency

The WELS Scheme is also considered to be largely efficient. It cost-effectively delivers on its objectives by delivering water savings at far lower cost than alternative water supply augmentation measures, and provides effective and valued consumer information at extremely low marginal cost. It also delivers substantial and important public policy outcomes for very low total annual cost, avoids regulatory and administrative duplication, and drives innovation and technological development and improvement (which leads to higher performing products for lower cost to consumers). Efficiency improvements can, however, be made, including to ensure:

- industry fees and government contributions reflect agreed cost-recovery arrangements over time and the principle of revenue neutrality
- the quantum and distribution of funding and investment within the Scheme is efficient.

Overall, the WELS Scheme is appropriate, effective and efficient. However, challenges and opportunities for improvement were identified and these need to be addressed to ensure future benefits are secured at the least overall cost.

Findings: options for the future

Findings related to future options for the WELS Scheme are that:

- **Cessation of the WELS Scheme is not a viable option.** This would mean compromising substantial water savings and other benefits for a wide range of stakeholders, could lead to more costly arrangements overall and is not supported by stakeholders.
- **Continuation of the WELS Scheme without modification is undesirable.** This would ultimately ignore many material concerns raised by stakeholders, and fail to grasp important opportunities to improve the effectiveness and efficiency of the Scheme.
- **Merging the WELS Scheme with (respectively) the WaterMark Scheme and Equipment Energy Efficiency (E3) Program, is neither feasible nor desirable.** There are major differences between the purpose and intent of these schemes; the resulting arrangements would be overly complex and potentially unviable; certain products would lose coverage, leading to a substantial loss of benefits; the objectives of the Scheme would be compromised; and the costs of change would likely outweigh the benefits achieved.
- **Continuation of the WELS Scheme with modifications to address material challenges or opportunities is the most appropriate course of action.** Making modifications would ensure benefits are secured and objectives continue to be met at least cost, including ensuring the regulatory burden is minimised and costs to governments and society are reduced.

Of the options raised, the potential merger of the WELS Scheme with the WaterMark Scheme attracted the most interest and discussion. While the objectives of the two schemes are compatible, they are not interchangeable: WaterMark regulates plumbing installations and has a focus on public health and safety, and product integrity; WELS is a consumer advisory scheme aimed at enhancing water efficiency. Merging the two schemes would require fundamental changes to the design, operation and administration of one scheme or the other. The resultant costs and compromises ultimately mean this option is not supported; particularly as the preferred option (continuation with modifications) addressed many key concerns without the attendant costs and risks of merging schemes.

Potential modifications

Measures considered

Given continuation with modification is viewed as the most appropriate course of action, different measures were considered to address the most material challenges or opportunities. These included:

- Streamlining the registration process for the WELS Scheme, E3 Program and WaterMark Scheme for products that are covered by more than one scheme

  - This could include a 'one-stop-shop' and a common portal with a unified process for registrants; and could be supported by bringing administration of the WELS Scheme and E3 Program within the one government department.
  - This would address the extent of direct and indirect costs on industry and reduce the overall regulatory burden, while also contributing to reductions in the administrative and operational cost-base within government. It would particularly target industry concerns about duplication of paperwork with data being required to be entered once only.

- Development and implementation of a risk-based compliance and enforcement framework
  - This would ensure compliance and enforcement activities are proportionate to the risks associated with non-compliance, and also lead to reductions in the costs of compliance for both industry and government. This would focus on reaching agreement with industry on approaches to compliance and overcome perceptions of heavy handed regulation.
- Modifying the approach to stakeholder engagement and consultation
  - This would address stakeholder concerns about the effectiveness of engagement, and ensure the WELS Scheme can more readily adapt to the needs and requirements of stakeholders over time.
- Changing the target cost-recovery split between government and industry to 50:50
  - This is required to ensure financial contributions more accurately reflect the distribution of benefits to different stakeholders and is based on established cost-recovery principles. Cost reductions delivered by the previously mentioned measures would help to make a transition to this arrangement possible without significantly increasing government contributions in absolute dollar terms.
- Changing the product registration period to reintroduce a five year term, with associated modifications to expiry and grace period arrangements
  - The five year period would help ensure better alignment between related schemes, and associated modifications would address major concerns about unnecessary costs or risks imposed on industry by potentially unregistered stock. This change would also be facilitated by combined reductions in the cost-base delivered by other measures.

Feasibility of proposed modifications

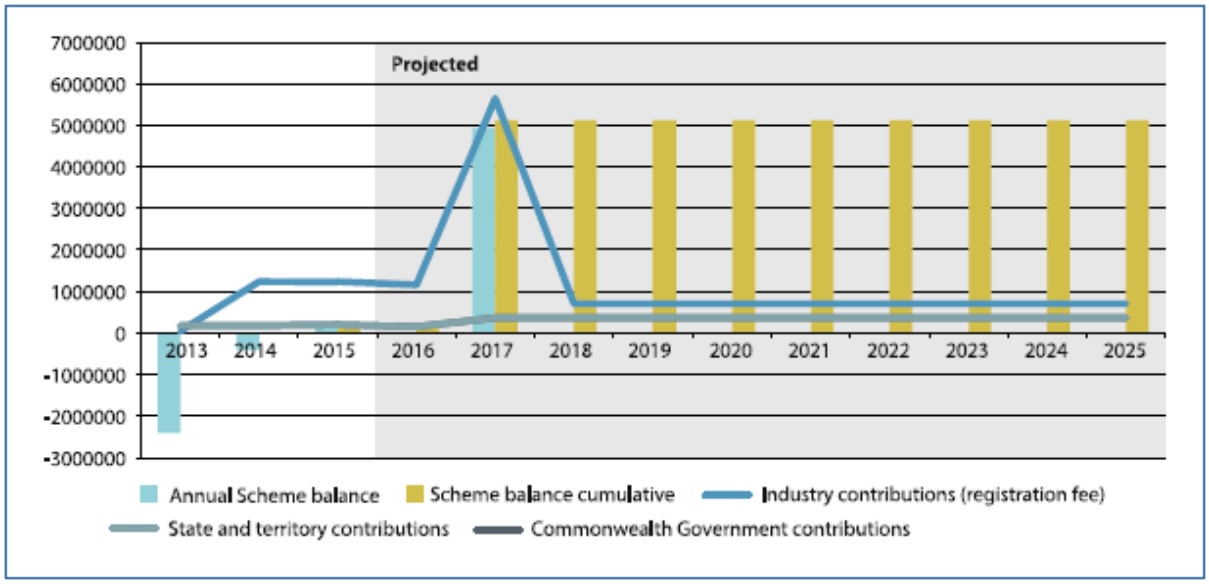
In order to test the feasibility of implementing changes to the WELS Scheme, the Review Team undertook modelling of different future scenarios. These include assumptions about the turnover of registered products and administrative expenditure, and are designed to determine the impacts of changes, such as registration fees and government contributions, on different stakeholders. These scenarios included modelling business as usual conditions (Business as usual Scenario), a situation where the 80:20 cost-recovery target is met but no other changes are made (Scenario 1), and three other scenarios:

- Scenario 2 – reduces annual scheme expenditure substantially, introduces the 50:50 cost-recovery split, assumes 'favourable' levels of product turnover, and implements five year product registrations

- Scenario 3 – leaves expenditure unchanged ($1.44 million), implements the 50:50 split, assumes a 'middle ground' estimate of product turnover, and implements five year product registrations
- Scenario 4 – leaves expenditure unchanged, assumes the current 80:20 cost-recovery target is met, assumes 'worst case' estimate of product turnover, and implements five year product registrations.

The results from scenario modelling suggest that the modifications considered above are reasonable and achievable, with the possible exception of the concept of adopting five year product registration. This latter change would be possible to implement with acceptable impacts to all stakeholders only if 'favourable' assumptions about product turnover hold true, and the Department is able to effectively run the WELS Scheme at a lower cost-base than is currently the case. Under less favourable assumptions (Scenario 3) introduction of the proposed measures remains feasible, however there are substantial impacts on governments (a rise in annual dollar contributions) (Figure ES3).

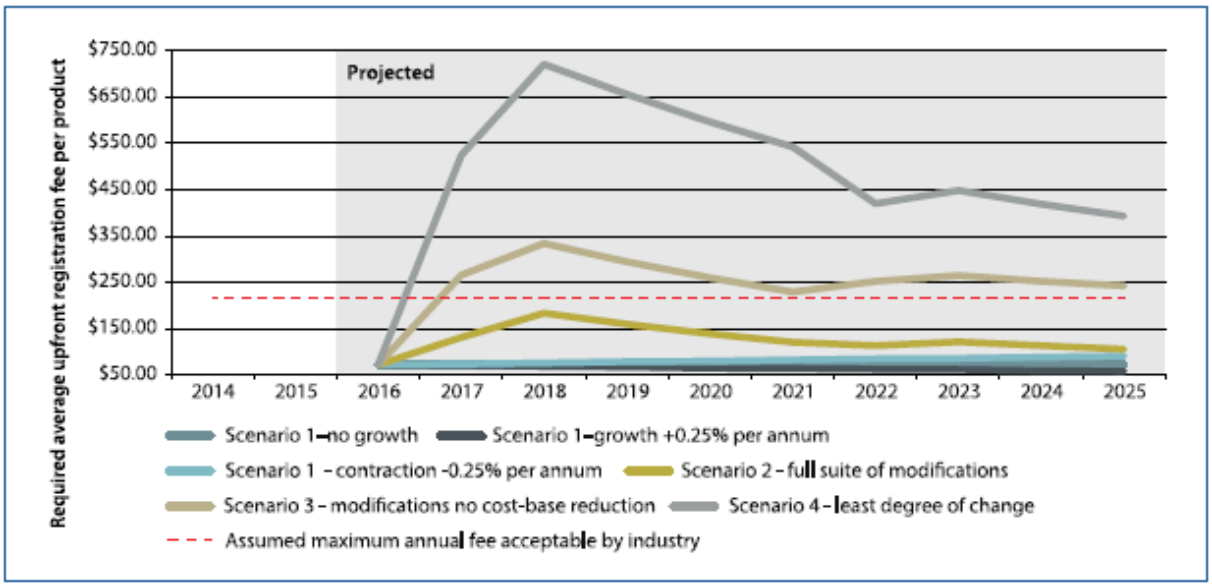
Figure ES3. Scenario 3 – Full modifications excluding cost-base reductions



Source: Aither based on information provided by the Department of the Environment.
Note: See Appendix I for a list of all assumptions made.

While the WELS Scheme would remain financially viable under Scenario 3 with total direct costs to industry reduced substantially, it would require industry to concede a slightly higher upfront fee (for a five year registration period) than it has expressed a preference for (Figure ES4). Under Scenario 4 total costs to industry and per product registration fees would rise substantially.

Figure ES4. Impact on registration fees Scenarios 2, 3 and 4



Source: Aither based on information provided by the Department of the Environment.

Given these results, and in consideration of other factors (such as the substantial changes made to the WELS Scheme in recent years), the Review found that modifications to the product registration period may not be desirable at this time. However, other measures assessed were suggested to be desirable and feasible.

Conclusions

Securing current and future benefits

The WELS Scheme is effectively meeting its objectives and there is broad agreement that they remain appropriate now and will do so into the future. The Scheme is likely to have contributed to observed reductions in water consumption, with its water savings potentially having a cumulative economic value by 2030 as high as $4.8 billion (2015 dollars).

To secure these and other important benefits, the Review found that it is important that the Scheme be retained, but with modifications to address material concerns raised by stakeholders and to grasp opportunities for improvement.

Creating a more equitable WELS Scheme

The significant benefits provided by the WELS Scheme are distributed amongst a range of stakeholders. However, the current 80:20 cost-recovery split does not appropriately reflect the distribution of benefits from the Scheme. The main beneficiaries are consumers and society, as well as state and local governments, but governments only pay a small share of overall direct costs and consumers pay no upfront costs (although costs are largely passed on to consumers). At the same time, industry (at least initially) bears the majority of the direct financial costs of the Scheme.

Creating a more effective and efficient WELS Scheme

Current compliance and enforcement arrangements appear to be achieving a high level of industry compliance, but there are concerns about whether they are effective in addressing emerging challenges or are proportionate to the risks presented by non-compliance. A risk-based compliance

and enforcement framework could potentially reduce costs for all parties and improve the cost-effectiveness of actions undertaken, while not creating serious risks to the objectives of the WELS Scheme.

There are also opportunities to improve the effectiveness of stakeholder engagement. There appears to be no strong justification for the Water Efficiency Labelling and Standards Advisory Group (WELSAG) to convene on an ongoing basis, and introduction of stakeholder forums appears to be a more effective mechanism, if delivered using cost-effective approaches (such as online webinars or streaming, or tele and video conferences).

Options to merge the WELS Scheme with other related schemes were found inappropriate given the likely complexities, costs and risks to the delivery of the objectives, but there may be efficiencies through locating the administration of the Scheme and E3 Program within the one Commonwealth Government department. Options to address this warrant further investigation, but the separate public face and branding of the two schemes should not be compromised.

In addition to the proposed modifications assessed, the Department could take additional steps in other areas to improve efficiency, including to:

- outsource registration and application arrangements to a third party to reduce the direct financial costs of the WELS Scheme
- work with state and territory consumer affairs departments to lower the cost and increase the effectiveness of compliance and enforcement
- develop a combined check testing program for whitegoods that leverages the E3 Program's established check testing program.

Reducing regulatory burden for industry

While it was found that the regulatory burden imposed by the WELS Scheme on product registrants has reduced in recent years and is now broadly acceptable, there are opportunities to further reduce this burden.

The time taken to register products is compounded by the need (for some registrants) to undertake two separate processes for products covered under two schemes. On this basis, pursuing the development of common portal with a unified registration process for products covered by one or more related schemes could reduce regulatory burden on industry, as well as administrative costs for government.

While implementation of a common portal with a unified registration process would contribute much to reducing the regulatory burden on industry, it should also be noted that other modifications assessed also contribute to this – including a more equitable cost-recovery target, more appropriate compliance and enforcement arrangements, and measures that will reduce the overall cost-base, which lead to lower direct financial costs.

A five year product registration cycle has merits based on potential benefits to industry and cost savings for government, but it may be impractical based on the:

- impact on industry of the level of upfront registration fees required

- risk that registration fee income was not adequate, or WELS Scheme administration costs could not be sufficiently reduced to provide adequate confidence in its financial sustainability.

However, further stabilisation of the WELS Scheme and firming of long-term data on product registration trends should allow further consideration of this aspect over coming years. On this basis, it is hoped that as the Scheme further matures and the series of modifications found beneficial by this Review are implemented, it will be possible to revisit the prospect of a five year registration cycle before or at the next independent review in 2020.

Recommendations

The Review makes recommendations focussed on securing current and future benefits while reducing financial costs and regulatory burden to industry and government. They are made cognisant of the fact that the WELS Scheme has recently undergone reform and change.

Recommendation 1

The WELS Scheme should be retained – including retaining unchanged:

1) current objects of the *Water Efficiency Labelling and Standards Act 2005* (Cwlth), and thus objectives of the WELS Scheme
2) current types of products covered by the WELS Scheme
3) WELS Scheme as a discretely publically-visible consumer advisory scheme – including external public branding and marketing.

Recommendation 2

The cost-recovery target should be changed to a 50:50 split between industry and all Australian governments – with the proportional split between the Commonwealth Government and state and territory governments remaining equal, at 25 per cent each.

Recommendation 3

Compliance and enforcement activities for the WELS Scheme should move to a risk-based approach. This should include:

1) development of a risk-based compliance and enforcement framework (developed in consultation with industry)
2) improved education, assistance, support and advice for industry to enable stakeholders to meet their legal obligations under the WELS Act 2005, without the need to escalate costly enforcement actions.

Recommendation 4

Stakeholder engagement processes for the WELS Scheme should be modified, including to:

1) only convene the Water Efficiency Labelling and Standards Advisory Group (WELSAG) to advise on the five yearly independent review cycle, or for other specific tasks – such as proposed material changes to the WELS Scheme
2) establish a regular program of stakeholder forums with the purpose of explaining important changes to the operation and administration of the WELS Scheme. These should wherever

possible use more innovative and lower cost approaches such as webinars, tele or video conferences or other online forums

3) improve the management of the Water Efficiency Labelling and Standards Officials' Group (WELSOG) – including ensuring meetings are held at appropriate frequency, more effective communication with and between WELSOG members, and reporting to Ministerial Council is consistent and timely.

Recommendation 5

The Department should assess the feasibility of additional administrative and procedural changes to reduce costs and improve WELS Scheme operation, including:

1) WELS Scheme and E3 Program being administered under the same Commonwealth Government department, while retaining separate legislative underpinnings and branding

2) outsourcing the collection of registration fees, assessment of applications for registration under the WELS Scheme, and entry into and maintenance of the WELS Scheme Product Database to the Conformity Assessment Body (CAB) system

3) establishing a cooperative compliance program with all Australian states and territories consumer affairs departments (or similar)

4) a joint check testing and compliance program with the E3 Program for relevant whitegoods covered under both schemes.

Recommendation 6

A unified single product registration process should be adopted for the WELS Scheme and the E3 Program (for whitegoods) and the WELS Scheme and WaterMark Scheme (for plumbing products) – comprising common documentation for registration of common products.

Part A. Introduction and background

1 Background and scope

1.1 Background

Established in 2005, the Water Efficiency Labelling and Standards (WELS) Scheme requires the mandatory registration and labelling of certain water-using products supplied across Australia. The WELS Scheme aims to reduce society's total water consumption by promoting the adoption of more water efficient products and technologies. It does this by providing consumers with product specific water efficiency information at the point of sale, with the aim to foster more informed decision making about the comparative water-efficiency of products available. Products covered under the Scheme include showers, certain taps, flow controllers, toilets, urinals, clothes washing machines and dish washing machines.

The WELS Scheme is administered by the Commonwealth Department of the Environment (the Department) on behalf of all Australian governments. Administration of the Scheme by the Department is pursuant to the *Water Efficiency Labelling and Standards Act 2005* (Cwlth) (WELS Act 2005) and associated legislative instruments. The WELS Act 2005 is reinforced by supporting legislation in all Australian states and territories.

Section 76 of the WELS Act 2005 requires an independent review of the WELS Scheme to be undertaken every five years from the date of its commencement. In 2010, the first independent review of the Scheme was undertaken (2010 Review). This year, 2015 marks 10 years since the Scheme's establishment, and therefore the second review cycle is due.

In November 2014, Senator the Hon. Simon Birmingham (former Parliamentary Secretary to the Minister for the Environment) appointed Tom Mollenkopf as the Independent Reviewer to undertake the *Second Independent Review of the Water Efficiency Labelling and Standards Scheme* (the Review). To support the Reviewer, the Department engaged Aither Pty Ltd to act as the project support team (Review Team).

This report documents the outcomes of the Review – including its findings and recommendations.

1.2 Terms of Reference

The Terms of Reference for the Review require an assessment of the appropriateness, efficiency and effectiveness of the WELS Scheme, and the extent to which its administration has met the objects of the WELS Act 2005. In addition, the Review is required to consider the regulatory burden of the Scheme on business and the community, and identify ways to improve and streamline it. This includes identifying opportunities to reduce compliance costs for business and improve information provided to consumers.

The Terms of Reference specifically require examination of:

- performance of the current WELS Scheme in meeting the objects of the WELS Act 2005

- water and energy savings and other environmental benefits attributable to the WELS Scheme – including the impacts on water availability for agriculture, the environment and other non-urban uses
- how the WELS Scheme is used by consumers, industry and regulators and the interactions with other regulatory arrangements – including the WaterMark Scheme and the Equipment Energy Efficiency (E3) Program
- cumulative regulatory impacts and costs of the current WELS Scheme, and other regulatory arrangements, on industry and consumers
- appropriateness of the current cost-recovery arrangements and their impact on business and the community
- appropriateness of the range of products currently covered by the WELS Scheme
- appropriateness of current mechanisms for industry engagement on the administration of the WELS Scheme
- alternative models for the provision of consumer water efficiency information and administration of the WELS Scheme – including international examples and the risks and benefits of alternative models.

The full Terms of Reference for the Review can be found at Appendix A.

1.2.1 Commonwealth Government deregulation agenda

Being a regulatory measure, the WELS Scheme, while established to deliver public benefits, imposes a degree of regulatory impost which places costs on Australian businesses and society. As a matter of good public policy, regulatory burden should be minimised wherever possible, while ensuring this does not reduce the benefits of the regulatory measure, or compromise its objectives.

Certain aspects of the Terms of Reference of this Review reflect the Commonwealth Government's deregulation and red tape reduction agenda.[4] Specifically, the Terms of Reference require the Review to identify opportunities to reduce regulatory burden and to make an assessment of the cumulative regulatory impacts of the WELS Scheme. These points are addressed in the content, findings and recommendations presented in this report.

1.3 Approach and methodology

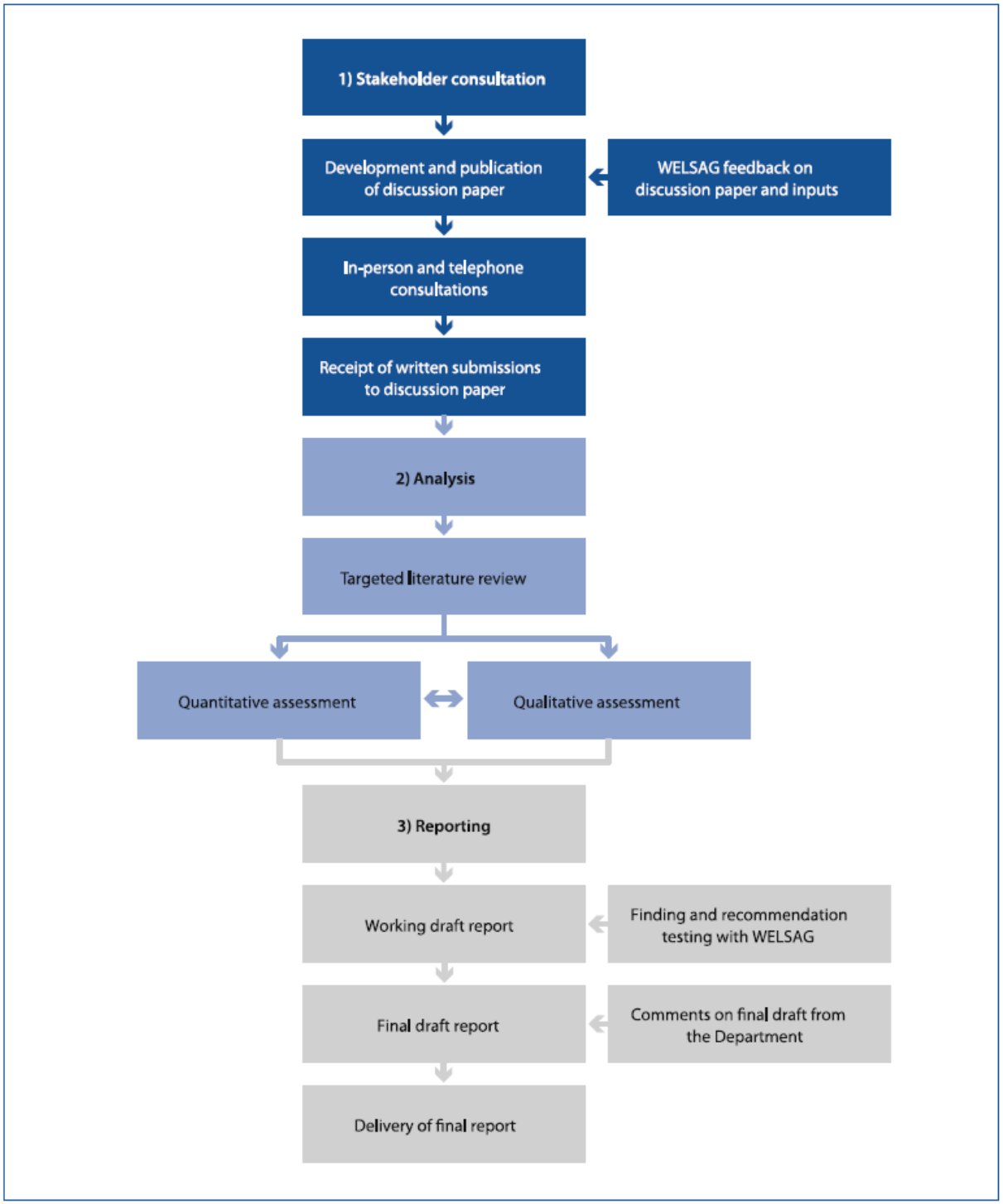
1.3.1 Approach

The Review consisted of three main phases: preparation and public release of a discussion paper, and stakeholder consultation; quantitative and qualitative analysis; and reporting – including the delivery of a draft for comment by the Department and final report to the Department and Parliamentary Secretary to the Minister for the Environment. This approach enabled the Reviewer to acquire public and non-public information that could support analysis to address the Terms of Reference, and to

[4] Red tape being regulations that are counterproductive to the efficient operation of government and society, meaning that the costs of business and individuals complying with them are greater than the public benefit realised from their existence.

develop a suite of recommendations that are built on robust industry and stakeholder insight. The approach is illustrated in more detail in Figure 1.

Figure 1. Approach to the Review



Source: Aither.

1.3.2 Method

Phase 1 – Discussion paper and stakeholder consultation

As an initial step, a discussion paper was developed which posed a range of questions to stakeholders reflecting the Review's Terms of Reference, focus areas and known areas of contention

with the WELS Scheme (Appendix B). The discussion paper was not based on any formal consultation with stakeholders. Rather, its content reflected a comprehensive literature review and initial workshopping with the Department. The paper was publically released on the Commonwealth Government's Water Rating website in early December 2014, and response was invited from a large number of WELS Scheme stakeholders.[5]

Immediately following release of the discussion paper, a workshop was held on 9 December 2014 in Canberra with the Water Efficiency Labelling and Standards Advisory Group (WELSAG). WELSAG members were given the opportunity to discuss their views on the issues raised in the paper in an open forum setting. Discussions from this workshop are reflected in the content of this report.

To canvass a broader array of stakeholder views, contact was made with over 50 individuals from a range of organisations. The Reviewer consulted with 32 organisations in total. These stakeholders were invited to take part in in-person or telephone consultation. In-person consultations were undertaken in Canberra, Sydney, Perth, Brisbane and Melbourne between December 2014 and February 2015. Organisations included state and Commonwealth Government departments and agencies, industry and representative bodies, retailers, consumer advocacy groups, and Conformity Assessment Bodies (CABs) (see Appendix C for a full list).

The formal written submission period for the Review opened with the public release of the discussion paper (December 2014) and closed on Friday 6 February 2015. A total of 22 public written submissions were received by the Reviewer (four submissions were provided in-confidence and have not been publically released). All non-confidential submissions are publically available at the Review website.[6]

Phase 2 – Analysis

Following closure of the written submission period, the Review Team considered material provided by stakeholders alongside other literature and information acquired through in-person consultation. The Review Team then used this information to document the known benefits of the WELS Scheme to date, current costs, and other challenges and issues.

As part of this phase, the Review Team also undertook a range of financial analyses based on financial and other WELS Scheme information provided by the Department. This analysis included modelling of the expected financial sustainability of the Scheme under various business as usual and other scenarios. This was used to inform the development of future options and assess their respective validity.

Following development of a large body of analysis, the Review Team made an assessment of the appropriateness, efficiency and effectiveness of the current WELS Scheme. Based on this assessment, and the finding that changes could and should be made, a number of future options for the Scheme

[5] It is understood that the Department provided the discussion paper via email to a large number of WELS Scheme stakeholders – including all registrants listed on the WELS Scheme's Product Database and other industry stakeholders as at December 2014. The Reviewer also provided the discussion paper to a number of other industry and government contacts.

[6] Public submissions to the Review can be accessed at <http://www.waterrating.gov.au/consultation/2015-wels-scheme-review>.

were able to be developed. The validity of, and ability to implement, these options was then established, based on an assessment of the improvement each specific option could have.

Phase 3 – Reporting
Following the development of a working draft report, consultation was undertaken with the Department and WELSAG (which convened again on Wednesday 1 April 2015) to test draft findings and recommendations. After addressing comments, a final draft report was provided to the Department for comment on 8 April 2015. Following the receipt of comments on the report, the Reviewer delivered the Final Report (this document) to Department in June 2015.

1.4 Report structure

The remainder of the report is structured as follows:

Part A – the remainder of Part A provides relevant background material about the WELS Scheme and similar schemes, and a brief history of water efficiency measures in Australia as this relates to the establishment of the WELS Scheme.

- *Section 1* has provided the Review's scope and the structure of this report.
- *Section 2* provides a brief history of water efficiency measures in Australia over the past few decades as this relates to the establishment of the WELS Scheme.
- *Section 3* provides a brief background to the WELS Scheme, its objectives, and current administration and operation.
- *Section 4* presents a short summary of changes to the WELS Scheme since the 2010 Review as they relate to discussions in this report.
- *Section 5* presents a brief overview of other schemes related to, or similar to, the WELS Scheme as they relate to discussions in this report.

Part B – documents the known costs and benefits of the WELS Scheme to date and presents a number of findings that have informed the assessment of the WELS Scheme and future options.

- *Section 6* documents findings about the benefits that the WSLS Scheme has delivered to date and is expected to deliver in the future.
- *Section 7* documents findings about direct and indirect costs that are attributable to the WELS Scheme.

Part C – presents an assessment of the current WELS Scheme based on findings made in previous sections of the report.

- *Section 8* presents an assessment of the WELS Scheme's appropriateness, effectiveness and efficiency, based on qualitative and quantitative analysis.

Part D – puts forward and assesses a number of future options for the WELS Scheme based on previous findings and assessment. Part D also presents the Review's conclusions and recommendations based on this assessment of options.

- *Section 9* presents and assesses four distinct options based on potential improvements they could have on the appropriateness, efficiency and effectiveness of the WELS Scheme.

- *Section 10* presents the Review's overall conclusions and recommendations.

Part E – provides a reference list for this report and includes all appendices.

2 Water efficiency in Australia

Water is a critical natural resource, but its availability in Australia can be highly variable and at times very scarce. For this reason, urban water resource managers have for many decades employed water efficiency measures aimed at reducing society's consumption of water without compromising the value that water delivers through its use in various activities (WSAA 2013). The history of these measures (including initial water efficiency labelling schemes) and other driving factors provides important context for understanding the rationale for the establishment of the WELS Scheme and its enduring relevance.

2.1 Drivers of water efficiency

While the specific drivers of Australian urban water efficiency measures have changed over time based on different circumstances, drivers broadly include:

- Drought or low water inflows – driving the implementation of water efficiency measures at times that inflows to urban water storages are reduced for an extended period of time.
- Increasingly variable climatic extremes – forcing water resource managers to attempt to reduce overall baseline water consumption to mitigate the long-term impact that variable climatic extremes have on urban water storage levels.
- General population growth and deferring investment in new sources of water supply – population growth (especially in concentrated geographic locations) places increased pressure on the capacity of current water supply sources (such as urban water storages). By increasing water efficiency and reducing per capita water consumption, the need to invest in larger storages or find new sources can be deferred, thus avoiding costs.
- Cost of living pressures – in response to these pressures some governments and utilities have implemented measures (for example, rebates) to decrease water use, which in turn decreases utility bills for individuals and households.
- Technology availability and cost – general technological advances deliver lower cost solutions to manufacturing more water efficient products (mainly in the appliance sector), which means that more efficient technologies are available for a greater proportion of society to access.

Over the past decade, the biggest driver of water efficiency in the southern and eastern states of Australia has been the Millennium Drought (NWC 2011). This was one of the most widespread and harshest droughts of the past 100 years; it delivered a severe and prolonged lack of rainfall across Australia, including many of its urban water catchment areas. As a result, Australian governments at all levels were presented with the need to seriously consider the security of their urban water supplies. As examples:

- Water storages in south-eastern Queensland were full in 2001, but by 2007 had fallen to less than 17 per cent of capacity.
- Storage levels in Sydney had dropped to 30 per cent of total capacity by 2007, falling some 60 per cent in the preceding six years.

- The level of Melbourne's storages fell below 30 per cent during the same period of time (NWC 2011).

While parts of Western Australia were impacted by the Millennium Drought, due to the persistent nature of water scarcity in some parts, water resource managers and governments instead refer to a fundamental climatic shift that has resulted in reduced rainfall and water yields, creating a widening gap between water demand and supply. This gap has been the primary driver for ongoing efforts in Western Australia to improve water efficiency across all parts of the economy and society.

2.2 Water efficiency responses

In response to the Millennium Drought and other concerning climatic shifts, governments and water utilities began earnestly responding in the early 2000s by implementing a suite of water efficiency and demand management measures, with the aim of reducing urban water consumption. The introduction of minimum water efficiency standards and labelling was only one of the responses (NWC 2011).

As a visible first step, mandatory water restrictions combined with education and information awareness campaigns (including rebate programs) were implemented by the majority of jurisdictions across Australia (NWC 2011). Jurisdictions also began to introduce regulations to prescribe minimum water efficiency targets for new housing developments. At the same time, some jurisdictions made regulatory changes to expand the coverage of water meters.

As the Millennium Drought worsened and concerns over long-term water security grew, utilities and jurisdictions also considered additional leak detection and repair programs to reduce the amount of water lost though the delivery of water to customers across reticulated water supply networks. In addition, utilities and regulators began introducing greater cost-reflective pricing to incentivise reductions in water use (NWC 2011).

An important distinction can be made between the types of responses implemented during this time, being those that:

- reduced water use in the short-term – such as water restrictions[7]
- aimed to drive more fundamental behavioural change – for example, education, information awareness campaigns and cost-reflective pricing
- more permanently embedded reductions in water consumption – such as the purchase or mandatory adoption of more water-efficient products through standards and labelling schemes and rebate programs, minimum water efficiency requirements in new developments, and leak detection and repair programs.

[7] While most jurisdictions have now removed the most severe levels of water restrictions, many jurisdictions have adopted permanent water conservation measures.

2.3 Evolution of Australian water efficiency labelling schemes

Various forms of water efficiency labelling schemes have been in existence across Australia for more than a quarter of a century, with voluntary schemes predating by over a decade the increased focus of water efficiency in the early 2000s.[8]

2.3.1 Pre-1994 voluntary Victorian scheme

In 1988, a voluntary water efficiency labelling scheme was established in Victoria by the Melbourne Metropolitan Board of Works (now Melbourne Water) (GWA 2003). The scheme initially covered water efficiency ratings for showers only, offering two rating labels: A and AA. To achieve an A rating, a shower product required a flow rate of less than 12 litres per minute (GWA 2003). To achieve an AA rating, a shower product required a flow rate of less than 9 litres per minute.[9]

Around 1990 the administration of the scheme changed hands to the Water Efficiency and Plumbing Group (WEAP Group).[10] Not long after, in 1992, Australian Standard MP64-1992 – which provided a manual of assessment procedures for establishing the water efficiency of a given product – was introduced. The introduction of this standard saw the administration of the scheme shift again, this time to Standards Australia. The shift also brought the addition of an AAA rating to the two existing efficiency ratings (GWA 2003). At this point the voluntary Victorian scheme covered showers, dish washing machines and clothes washing machines.

2.3.2 1994 to 1999 voluntary national scheme

Building from the Victorian scheme, a national voluntary water efficiency labelling scheme was established in 1994 by the Australian Water Resources Council (AWRC) and the WEAP Group. Soon after its establishment, Australian Standard MP64-1992 was revised to MP64-1995, which introduced voluntary water efficiency ratings for toilets and taps (GWA 2003). With showers, dish washing machines and clothes washing machines already covered, this addition brought the total number of product categories covered to five.

When the WEAP Group was abolished in 1995, the voluntary national scheme's administration was jointly transferred to Melbourne Water and Sydney Water (GWA 2003) – representing the two largest markets for products covered. However, a lack of national consistency and the scheme's voluntary nature reportedly resulted in poor market traction (GWA 2003).

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[8] While the existence of these pre-WELS Scheme schemes is publically documented in various reports and other literature, limited information of their operation or administration was able to be sourced by the Reviewer. In this context, some secondary sources and personal communications have been relied upon for the following sections of the report.

[9] For context, an A rating is equivalent to a WELS 2 star shower and an AA rating is equivalent to a WELS 3 star shower under the current WELS Scheme.

[10] The WEAP Group reported to the then Water Technology Committee of the Australian Water Resources Council (AWRC); a council of Commonwealth, state and territory government water resources ministers.

2.3.3 1999 to 2003 voluntary 5A Scheme

In 1999, the Water Services Association of Australia (WSAA) assumed administration of the voluntary national scheme. WSAA, due to its national membership of water service providers, was arguably in a better position to foster the administration of the scheme in a nationally consistent manner (GWA 2003).

In 2001, the MP64-1995 standard was again revised, which added two more water efficiency rating levels to the three already in use – AAAA and AAAAA – and thus the scheme was known as the 5A Scheme. The introduction of the two additional ratings allowed consumers to more accurately differentiate between highly efficient products on the market.[11] Figure 2 provides an example of the water efficiency labels used on product during this period.

Figure 2. WSAA 5A Scheme example of water efficiency labels

Source: GWA 2003.

In 2003, Australian and New Zealand Standard MP6400-2003 was introduced – superseding the previous standard. While the national scheme remained voluntary, seven product categories were now covered under the scheme: showers, taps, flow controllers, toilets, urinals, dish washing machines and clothes washing machines (GWA 2003).[12]

The still voluntary 5A Scheme administered by WSAA continued to operate throughout the initial years of the Millennium Drought (early 2000s). While the 5A Scheme became increasingly relevant based on government's focus on water resource management, it lacked national consistency and industry uptake, and any major water savings attributable were questionable (see Box 1) (GWA 2003).

[11] At the time, no flow rate information (in litres per minute or similar) was provided on the water efficiency labels. As a result, and before the introduction of the AAAA and AAAAA ratings, consumers were unable to easily determine the difference between products within the same category that had the highest rating of AAA. For example, there would be no easy way for a consumer to determine the efficiency difference between a shower with a flow rate of 9 litres per minute and another with a flow rate of 7 litres per minute because both would be rated AAA at point of sale.

[12] These seven product categories are broadly the same products that are regulated under the current WELS Scheme.

Box 1 – Poor industry uptake of the 5A Scheme

In 2003, only 303 product models were listed on the 5A Scheme's product register – the majority of these registrations being for showers, taps, clothes washing machines and toilets. Based on the voluntary nature of the scheme, it is likely that the number of products registered at the time represented only a small segment of the total product models that were available in the market.

Research by George Wilkenfeld and Associates (GWA 2003) estimated that only 18 per cent of the clothes washing machines and 6 per cent of dish washing machines available in the market were registered with the 5A Scheme at the time. Similar data for showers, taps, flow controllers, toilets and urinals is not available; however, it is likely that a large proportion of these manufacturers would have chosen not to register because it was voluntary and they saw little or no marketing benefit from association with the scheme.

By 2003, the inherent limitations of the existing voluntary 5A Scheme were becoming apparent (pers. comm. WSAA 10/12/2014). There was also decreasing confidence that the existing scheme (which offered little incentive to most manufacturers) could achieve the national consistency and level of uptake required to make a meaningful impact on reducing water consumption (GWA 2003 and pers. comm. WSAA 10/12/2014).

Based on this lack of confidence, on 23 May 2003 the Australian and New Zealand governments agreed in principle to implement a national mandatory water efficiency labelling scheme (GWA 2003). In the context of this agreement, Environment Australia – now the Commonwealth Department of the Environment – commissioned GWA (2003) to assess the potential for, and impacts of, introducing a national mandatory water efficiency labelling scheme and minimum water efficiency standards. This agreement between Australia and New Zealand, and the subsequent GWA report, laid the foundations for the establishment of the WELS Scheme two years later.

2.3.4 2004 to 2006 establishing the WELS Scheme

Work undertaken in 2003 on a national mandatory water efficiency labelling scheme fed into the National Water Initiative (NWI) agreement. The agreement, signed by most Australian governments in 2004,[13] committed states and territories to passing:

legislation to implement the Water Efficiency Labelling Scheme (WELS)…in all jurisdictions and regulator undertaking compliance activity by 2005, including mandatory labelling and minimum standards for agreed appliances (COAG 2004, s. 91(i)).

Following the signing of the NWI agreement in 2004, the Commonwealth Government entered into an additional intergovernmental agreement with all state and territory governments in early 2005.[14] This agreement outlined responsibilities of jurisdictions for the implementation of the WELS Scheme. Soon after, the Commonwealth Government passed the *Water Efficiency Labelling and Standards Act 2005* (Cwlth), which gives effect to the WELS Scheme. Following a grace period of six months, the WELS Scheme became mandatory across all states and territories effective 1 July 2006 – even though

[13] Tasmania signed the NWI in 2005 and Western Australia signed in 2006 (NWC 2006).

[14] An agreement was subsequently reached with Western Australia and corresponding legislation passed in 2006 (NWC 2006).

national enforcement of it was not possible until 2007, by which time all state and territory governments had passed complementary legislation.

3 About the WELS scheme

The WELS Scheme administers the mandatory registration and water efficiency labelling of certain designated water-using products supplied across Australia – showers, certain taps, flow controllers, toilets, urinals, clothes washing machines and dish washing machines (see Appendix D for definitions of designated WELS products). Established under the WELS Act 2005 (and associated legislative instruments), the WELS Scheme is administered by the Commonwealth Department of the Environment, has national coverage and is enforced under corresponding legislation in all Australian states and territories.

3.1 WELS Scheme aims and objectives

The WELS Scheme aims to reduce Australian society's water consumption by promoting the adoption of more water efficient technologies. It does this by providing consumers with product specific water efficiency information at the point of supply (in most cases, sale). The objectives of the Scheme are captured in the three objects of the WELS Act 2005, namely:

1) to conserve water supplies by reducing water consumption
2) to provide information for purchasers of water-use and water-saving products
3) to promote the adoption of efficient and effective water-use and water-saving technologies (WELS Act 2005).

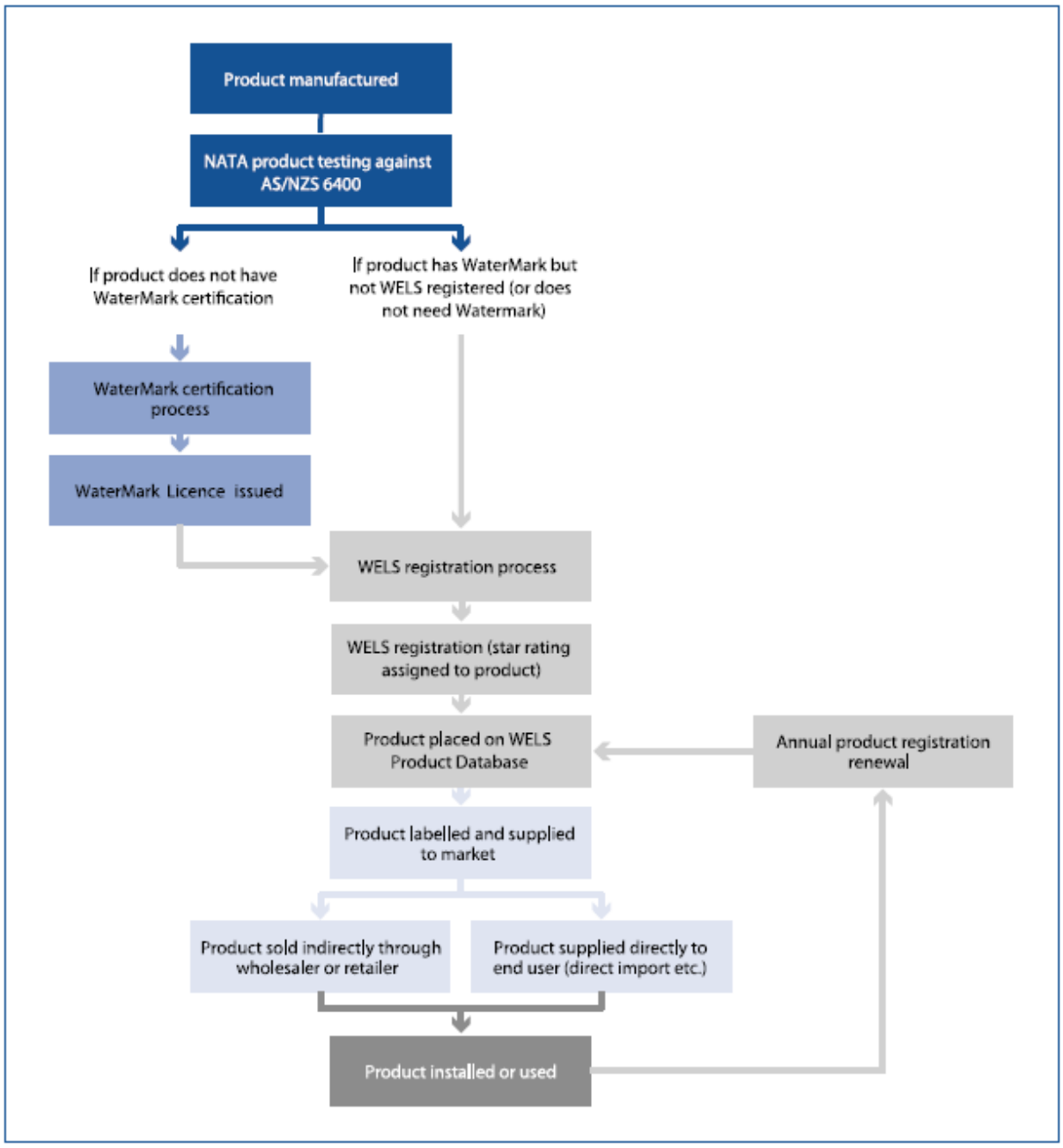
3.2 Key elements of the WELS Scheme

At its most fundamental level, the WELS Scheme requires that:

- designated products manufactured domestically or imported are tested against relevant Australian and New Zealand standards by a National Association of Testing Authorities (NATA) accredited testing laboratory
- evidence of a WaterMark Licence for those products that require it (showers, toilets, urinals, taps and flow controllers) is provided at the time of registration with the WELS Scheme[15]
- products are registered with the WELS Scheme on a one year renewal cycle (upon which an annual registration fee is payable) and are assigned a water-efficiency star rating
- product details are placed on the WELS Scheme Product Database, which is publically accessible and is maintained by the Department
- products are labelled and then supplied to market.
- Figure 3 provides a conceptual map of the WELS Scheme as outlined above.

[15] The WaterMark Scheme is a mandatory product certification scheme that ensures plumbing and drainage materials and products are fit for purpose and are compliant with the Plumbing Code of Australia. It covers a large range of plumbing and drainage equipment (such as pipe material and a range of non-consumer related equipment), only some of which is also covered under the WELS Scheme.

Figure 3. WELS Scheme conceptual map



Source: Aither.

3.3 WELS Scheme administration

The WELS Scheme is administered by the Commonwealth Government on behalf of all Australian state and territory governments. There are close to 30 different national and state Acts, regulations, determinations and standards related to the Scheme (see Appendix E for full list). Some of these regulatory instruments are directly enabling, while others play a supporting role.

3.3.1 Enabling legislation and regulations

The function and administrator of legislation and regulations that directly enables the WELS Scheme is presented in Table 1.

Table 1. Legislation and regulations enabling the WELS Scheme

Legislation or regulation	Function	Administrator
Water Efficiency Labelling and Standards Act 2005 (Cwlth)	Establishes the WELS Scheme and sets out its basic legal framework	Commonwealth Department of the Environment
Water Efficiency Labelling and Standards Regulations 2005	Outlines the provisions concerning infringement notices and identity cards for WELS Scheme inspectors	Commonwealth Department of the Environment
Water Efficiency Labelling and Standards Determination 2013 (No. 2)	Recently amended by the Water Efficiency Labelling and Standards (No. 2) Amendment Determination 2015 (No. 1), this determination provides guidance on what Australian and New Zealand standards products must meet under the WELS Scheme and details the registration process	Commonwealth Department of the Environment
Water Efficiency Labelling and Standards (Registration Fees) Act 2013 (Cwlth)	Establishes the legal basis on which fees for product registration are charged under the WELS Scheme	Commonwealth Department of the Environment
Water Efficiency Labelling and Standards (Registration Fees) Determination 2013	Most recently amended by the Water Efficiency Labelling and Standards (Registration Fees) Amendment Determination 2015 (No. 1), this determination provides details of the fee payable upon registration of a product	Commonwealth Department of the Environment

Source: Adapted from Australian Government 2015a.

3.3.2 Supporting legislation, regulations and standards

In addition to directly enabling legislation and regulations, a number of supporting legislation, regulations and standards aid the administration of the WELS Scheme. These supporting instruments are summarised in Table 2.

Table 2. Legislation and regulations supporting the WELS Scheme

Legislation, regulation or standard	Function	Administrator
State and territory based WELS Scheme legislation and regulations	Corresponding legislation in all Australian states and territories which reinforces enabling WELS Scheme legislation and regulations in Table 1	Australian state and territory governments
Australian and New Zealand Standard 6400:2005 – Water Efficient Products	AS/NZS 6400:2005, also known as the WELS Standard, provides criteria for rating product water efficiency based on water consumption figures. Products registered under the WELS Scheme must meet this standard. The standard has recently been made available online for free by SAI Global	Water Efficient Appliances Committee – Standards Australia – Committee WS-032
Product specific standards	AS/NZS 6400:2005 makes reference to 12 other standards which outline the respective standards that products under the seven WELS Scheme product categories must meet	Standards Australia – Committee WS-032[16]
WELS Scheme Intergovernmental Agreement	Whole of government agreement for the management of the WELS Scheme	Australian state and territory governments

Source: Adapted from Australian Government 2015a; and Standards Australia 2015.[16]

3.3.3 WELS Scheme governance

The WELS Regulator (the Regulator)[17] is responsible for administering all parts of the WELS Scheme, and enforcing legislation and regulations on behalf of all Australian governments. The Regulator works with industry and business to further the Scheme's objectives, and is authorised to exercise a range of interventions to enforce compliance. Compliance options available range from administrative and educational actions through to civil penalties and criminal prosecutions. It is the preference of the Regulator to take these actions in the first instance as a way of working cooperatively with industry and minimising both public and private burden.

The Regulator is informed by two groups whose respective roles are to help guide the policy direction of the WELS Scheme, and approve changes to policy and legislation. Both groups evolved from the now defunct intergovernmental Water Efficiency Labelling and Standards Advisory Committee (WELSAC).

Reporting directly to the Regulator, the Water Efficiency Labelling and Standards Officials' Group (WELSOG) is constituted of representatives from state and territory governments. WELSOG members work with the Regulator under an intergovernmental agreement to agree on legislative and operational matters related to the WELS Scheme. WELSOG most recently met via teleconference; however, the group has not met in-person in recent years.

Officially reporting to WELSOG (but in practice reporting directly to the Regulator), the Water Efficiency Labelling and Standards Advisory Group (WELSAG) provides advice to the Department about the policy direction of the WELS Scheme from the perspective of affected stakeholders. WELSAG has a membership designed to be representative of the Scheme's primary stakeholder groups – including manufacturers, importers, retailers, water utilities and consumer advocacy groups.

Unlike WELSOG, WELSAG has recently met in-person to discuss important changes to policy and the WELS Scheme technical standard. WELSAG was officially reconvened for the period of this Review and met twice between December 2014 and April 2015. The convening of WELSAG twice for this Review, while otherwise contrary to current Commonwealth Government policy on the convening of industry advisory committees, was approved based on the need for direct industry engagement in the review process and testing of initial findings.

3.4 WELS Scheme operation

The practical operation of the WELS Scheme involves interactions between four main actors:

1) product registrants (manufacturer or importer)

[16] Standards Australia – Committee WS032 is the plumbing and whitegoods water efficient products AS/NZ6400 committee. Related is the EL59 committee, which is the dish washing machine, clothes washing machine and dryers WELS Scheme whitegoods only committee.

[17] Currently the First Assistant Secretary of the Environment Quality Division in the Commonwealth Department of the Environment.

2) the Regulator and the Commonwealth and state and territory governments

3) product suppliers (wholesalers, retailers and similar businesses)

4) consumers.

The interaction of these actors across product registration, payment of fees and financial contributions, product supply and labelling, and compliance and enforcement covers the operation of the WELS Scheme.

3.4.1 Product registration

It is illegal to sell (supply) a product that is covered by but not registered with the WELS Scheme. Registration is required for any product covered by the Scheme that is manufactured domestically or imported into the Australian market. While registration is technically required before products are imported, it is understood that the Australian Border Force (Customs) do not enforce Scheme registration at the point of import.[18]

Product manufacturers or importers are typically the entities that register products under the WELS Scheme; however, in theory any entity or person can register a product.[19] Registrants can either register a new product that is being brought to market (i.e. it has never been registered by that registrant before, or it has lapsed), or renew a registration for a product that is remaining on the market for more than one year. To do this, they must complete an online application process, which involves a number of key steps:

1) if not the manufacturer of the product, the registrant must provide written advice from the manufacturer acknowledging their ability to register the product as a third-party

2) prove that the product being registered has a current WaterMark Licence (only applicable to showers, toilets, taps, urinals and flow controllers)

3) submit certified test reports which prove that the product complies with the WELS Standard AS/NZS 6400:2005

4) pay a legislated registration fee based on the total number of products registered in a given registration year.

During the registration process, WELS Scheme team members (Departmental staff) undertake an assessment to ensure the documentation provided by registrants is correct and accurate. Once this is established, staff apply a number of product specific water rating matrixes located in the WELS Standard AS/NZS 6400:2005 to determine the 'star rating' that the product should be labelled as. This star rating is primarily determined based on flow rate (litres per minute).

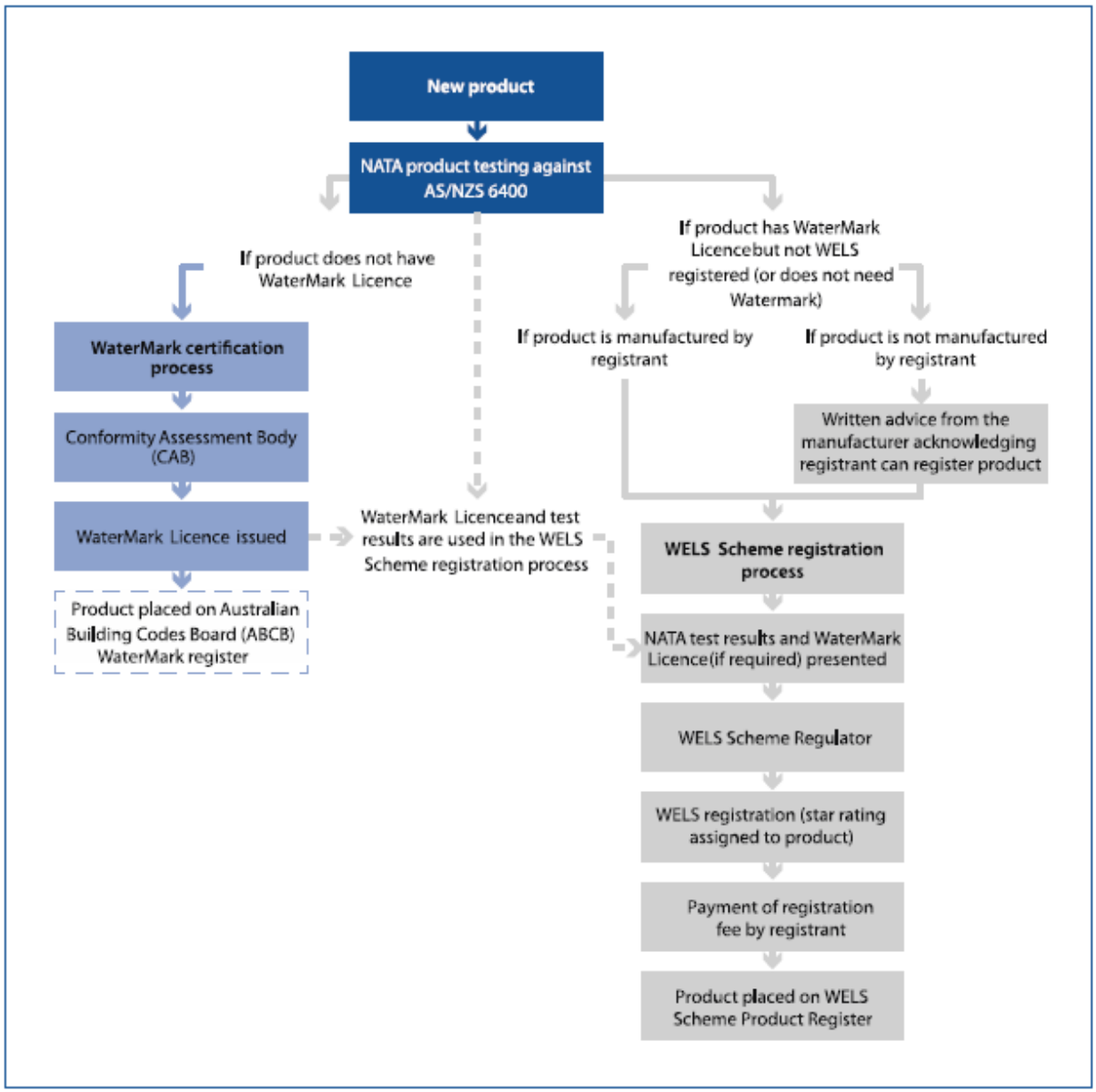
After a product is registered with the Regulator, its details (such as brand, model, registration expiry, licence number, star rating and water consumption) are placed on the WELS Scheme Product

[18] Calls to increase the involvement of Customs in WELS Scheme compliance has been raised a number of times (Guest 2010 and MMA 2010); however, it has generally been concluded that enforcing the registration of WELS Scheme products at point of import is not effective, potentially too complex and likely to have greater costs than expected benefits.

[19] Both domestic and international manufacturers are able to register products under the WELS Scheme.

Database, which is publically available online. The database is updated daily as new products are registered.[20] Figure 4 illustrates the registration process for new products under the WELS Scheme in more detail.

Figure 4. The WELS Scheme new product registration process



Source: Aither.

Registrants are required to renew product registrations on an annual cycle; expiring on 21 January every year. They are able to amend registration details at any time during the year.

On 15 September of every year registrants are automatically advised that the renewal period is open. Registrants are given until 5 December to renew product registrations, add new products or deregister discontinuing products. The online portal allows them to select products they wish to

[20] The WELS Scheme Product Database can be accessed at <https://apps5a.ris.environment.gov.au/wels-public/search-product-load.do?src=menu>.

renew from a prepopulated list of all products they have currently registered. After the renewal process is complete, they are invoiced for fees payable.

Box 2 – Sets of minor products

Under the WELS Scheme, registrants are able to register 'sets of minor products'. This allows a group of up to 15 individual products under the one registration, thus only requiring payment of fees equivalent to a single product registration. This effectively allows registrants to avoid the payment of multiple registration fees. Minor products can be registered if the Regulator is satisfied that fewer than 100 units of the product will be sold in Australia per annum; however, no evidence needs to be provided by the registrant to this effect.

Sets of minor products were introduced with the aim to provide a mechanism that would allow small business to manage the burden of fees, address market access issues and incentivise innovation (i.e. launching small speculative batches of new products onto market) (Australian Government 2015b).

3.4.2 Cost-recovery arrangements and registration fees

The WELS Scheme operates under a partial cost-recovery arrangement – meaning both government and industry contributes to covering its costs. Current arrangements are set on the basis of a target of 80 per cent of costs being borne by industry and 20 per cent borne by contributions from all Australian governments (Australian Government 2014a).

Revenue generated from industry and government contributions is used to cover a range of WELS Scheme costs – including:

- the cost of processing registration applications
- compliance and enforcement costs (both staff and non-staff costs)
- administrative support for WELSAG
- standards and policy development (Australian Government 2014a).

Revenue from industry is generated through an annual registration fee on all product registrations (including renewals). This fee is payable upfront (within 30 days of being invoiced), and is determined through a tiered structure based on the number of product models currently registered by the registrant (see Appendix F). Current registration fees range from $600 for one to five products registered per annum, to $121,000 for 2,001 to 4,000 products per annum (see Appendix F).

Registrants can register new products throughout the registration year for no additional cost unless they exceed the allowable cap in their current fee tier.[21] If by adding models a registrant moves into next tier, a bridging fee is payable to cover the difference between the fee of the previous and new tier.[22]

[21] Registrants can however add new products to a set(s) of minor products (if applicable) to avoid paying additional registration fees.

[22] For example: a registrant has registered eight products in their initial registration in a given year, paying the Tier 2 fee of $1,100. If they register a further product that year, there would be no additional fee, as Tier 2 covers 6–10 products. However, if the same registrant registers a further five products, they would move into

In addition to industry contributions, all Australian governments contribute funding on an annual basis. In theory all governments cover 20 per cent of the WELS Scheme's costs – split evenly between the Commonwealth Government and state and territory governments. This contribution is provided in lump sum payments from various governments and is based on an approved intergovernmental agreement (see Section 3.5 for further details).

3.4.3 Product supply and labelling

Entities and individuals who supply[23] designated products have a number of legal obligations under the WELS Scheme. Product suppliers must ensure that the products are registered under the Scheme, are correctly labelled by manufacturers and meet the requirements of the Water Efficiency Labelling and Standards Determination 2013 (No. 2) and Australian and New Zealand Standard AS/NZS6400:2005 (Water-efficient products—Rating and labelling).

In addition to other labelling requirements, the water efficiency label must have a zero to six star rating (determined by the Department), with more stars indicating a more water efficient product. The label must show the product's water consumption (litres per minute) – including any program or settings that the product was tested on. The licence number issued to the registrant by the Regulator must also be included, along with the registered company name and model name (for plumbing products, clothes washing machines and dish washing machines) (Australian Government 2015b).

At the point of supply (in many cases point of sale in a retail store or showroom) it is a requirement that:

- labels are affixed (glued or attached by double-sided swing tag) to the upper front portion of clothes washing machines and dish washing machines
- when plumbing products are supplied in packaging the label is clearly visible to potential purchasers on the front portion of packaging
- when plumbing products are not supplied in packaging, that either
  - the label is affixed to the product itself
  - the label is attached by swing tag
  - the label is located directly adjacent to the product on display so that it is obvious to the average purchaser that there is a link between product and label
  - a price tag (or similar) is located directly adjacent to the product showing WELS star rating and the water consumption figure (e.g. WELS 3 star, 9 litres per minute) so that it is obvious to the average purchaser that there is a link between product and tag (Australian Government 2015b).

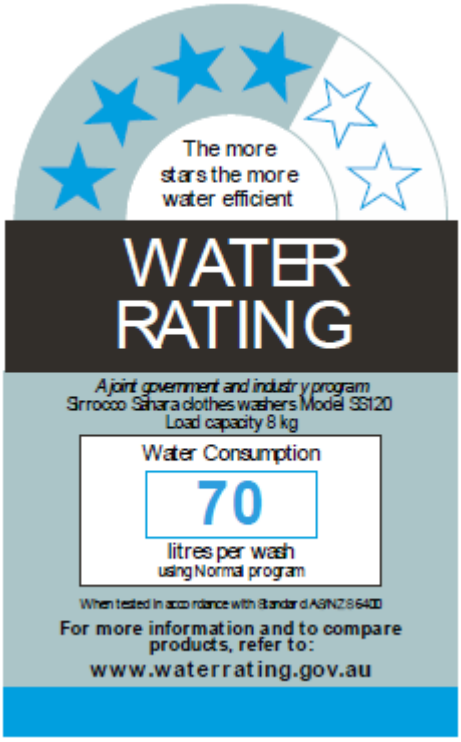
Tier 3, for which a fee of $1,700 is payable. Because an initial $1,100 has already been paid, a bridging fee is payable equal to the difference between the fee of Tier 2 and Tier 3, or in this case $600.

[23] According to Section 7A of the WELS Act 2005, the term 'supply' refers to a WELS Scheme product in the course of trading or commercial activities. Such activities include: an offer to supply; the act of selling, exchanging, gifting, leasing, loaning, hiring or hire-purchasing of a product; and supply of a product included as part of another object (such as a fitting or fixture). It is important to note that this also includes the supply of factory seconds or ex-display models.

Where products are being supplied for sale in an online medium (such as online retail store), it is a requirement that either a copy of the water efficiency label is presented with the item for sale, or a description of the WELS star rating and the water consumption figure (e.g. WELS 3 star, 9 litres per min) is visibly located on the page of sale for a particular product (Australian Government 2015b).

An example of a water efficiency label under the WELS Scheme is provided at Figure 5.

Figure 5. Example WELS Scheme water efficiency rating label



Source: Example provided to the Reviewer by the Department of the Environment.

3.4.4 Compliance and enforcement

The Regulator is able to use a range of powers to enforce requirements of the WELS Scheme, such as: monitoring compliance breaches of the WELS Act 2005; undertaking administrative and educational actions; imposing civil penalties; commencing criminal prosecution; withdrawing products from market; deregistering products, and advertising convictions. If appropriate, it is the preference of the Regulator to use a range of administrative actions and education avenues as alternatives to penalties and legal action.

The actions undertaken by the Regulator are a matter of public record. At time of writing it has:

- issued enforceable undertakings on 24 companies across Australia – these undertakings have generally been issued to retailers for supplying products not registered or not labelled correctly
- executed seven warrants to enter retailers' premises to determine compliance under the WELS Act 2005
- issued remedial action notices to two individual companies who were suspected on reasonable grounds of supplying or proposing to supply unregistered or unlabelled products to market
- served one Federal Court order against a now insolvent manufacturer and retailer to force compliance of obligations under an enforceable undertaking

- suspended then cancelled the registration of a number of designated products based on false or no longer accurate information provided at time of registration by an international manufacturer (Australian Government 2015b).

3.5 WELS Scheme financial details

A robust assessment of the appropriateness, effectiveness and efficiency of the WELS Scheme requires that its financial elements are presented and assessed in a transparent manner. The financial details presented in this section reflect what was made available to the Reviewer by the Department and what is known based on public documentation.

3.5.1 Development of the WELS Scheme budget

The WELS Scheme is administered through a special account arrangement. This arrangement allows unused funds to be carried over into future financial years, whereas under standard departmental budgetary arrangements, unused funds are be 'forfeited' at the conclusion of the financial year.

The WELS Scheme budget is developed by the Regulator and Department and approved for a given number of forward years based on the development of a Strategic Plan. In November 2011, the Department published the *Water Efficiency Labelling and Standards (WELS) Scheme Strategic Plan (2012 to 2015)*, which provides details on the WELS Scheme's approved budget for 2012–13, 2013–14 and 2014–15 (Table 3).

Table 3. Approved WELS Scheme budget – 2012 to 2015

Year	Approved budget
2012–13	$1.85 million
2013–14	$1.91 million
2014–15	$1.96 million
Total across all years	**$5.72 million**

Source: Australian Government 2011a.

3.5.2 Forecast for the 2014–15 financial year

Expenditure for the 2014–15 financial year is expected to be approximately $1.44 million – or about $520,000 less than approved in the Strategic Plan. The Department noted to the Reviewer that this expected reduction in expenditure is due to the WELS Scheme not undertaking a number of planned activities, and staffing efficiencies made by the Department over recent years.[24] Representatives from the Department described the Scheme as currently running in 'lite' mode, meaning it is being administered at the minimum expenditure to meet its objectives and undertake only absolutely core activities.

For the 2014–15 financial year, revenue is expected to total $1.62 million. At time of writing, roughly $1.23 million has been invoiced to industry for registration fees for the year, and $392,000 has been

[24] Actions not being undertaken include: the instigation of a check testing program (initial cost estimate of between $500,000 and $700,000 per annum); directing more resources towards tackling non-compliance of internet sales; and further database development work. The Department also believes that the reduction in expenditure leaves it more exposed to the financial risk of litigating non-compliant parties.

received from all Australian governments. If estimates of expenditure and revenue are correct, the WELS Scheme should generate a surplus of approximately $184,000 for the year (Table 4) – which will accrue to the WELS Scheme special account.

Table 4. Expected WELS Scheme expenditure and revenue – 2014–2015 financial year

Item	Approved dollar amount for 2014–15 (2011 Strategic Plan)	Expected actual dollar amount for 2014–15
Expenditure	-	-
Registration	$470,020	$247,914
Policy development	$441,657	$396,513
Compliance and enforcement	$950,323	$493,434[1]
WELSAG administration	$18,000	$0
Communications	$80,000	$0
Third-party suppliers and services[2]	$0	$300,000
Total expenditure	*$1,960,000*	*$1,437,861*
Revenue	-	-
Industry contribution (fees)	$1,568,000	$1,230,000
Commonwealth Government contribution	$196,000	$196,000
State and territory contribution	$196,000	$196,000
Total revenue	*$1,960,000*	*$1,622,000*
Balance in special account	$0	$184,139

Source: Australian Government 2011a and based on WELS Scheme financial details provided to the Reviewer by the Department of the Environment.
Note: 1) Includes non-staff costs such as travel and other expenses. 2) Such as commissioned research and development of improved IT systems; however, does not include the costs of the five yearly legislated independent review of the WELS Scheme.

Revenue generated from registration fees (industry contribution) is likely to cover 86 per cent of the expected WELS Scheme expenditure for the 2014–15 financial year.[25, 26] State and territory governments combined have contributed $196,000 – this is likely to cover 14 per cent of expenditure for the financial year (see Section 7.2.2 for further details on the breakdown between respective jurisdictions).[27] As per the intergovernmental agreement, the Commonwealth Government is required to match the state and territory government contribution.

However, for the 2014–15 financial year, it is likely that the majority of the Commonwealth Government's contribution will accrue to the special account for use in future years ($184,000).

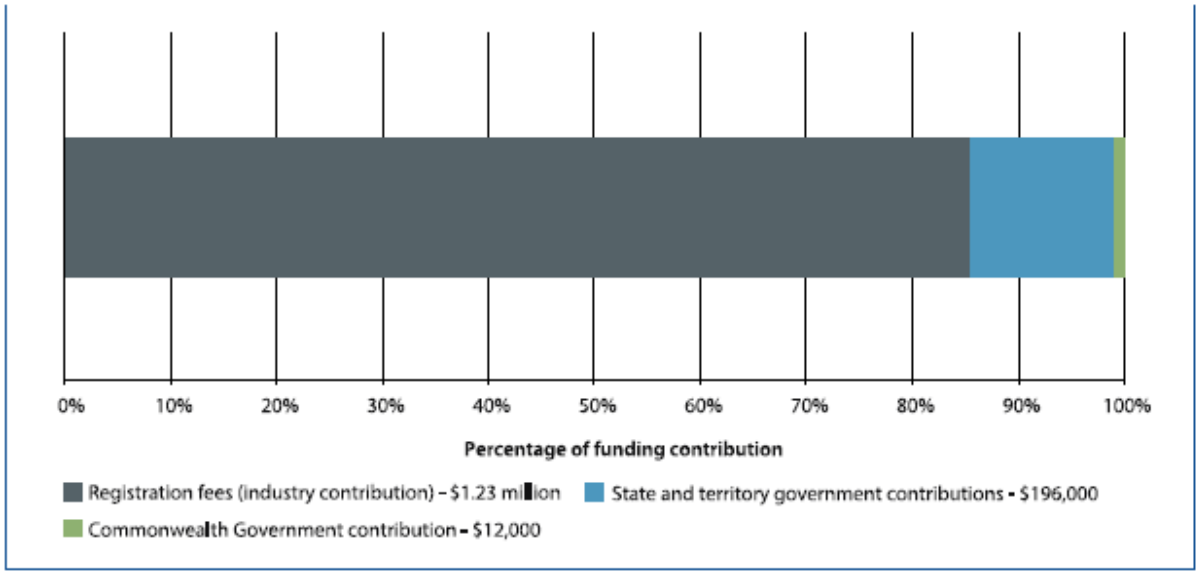
[25] For the current registration year 22 January 2015 to 21 January 2016, approximately 513 invoices have been sent by the Department to WELS Scheme registrants. Based on this, average fees payable by registrants are likely to be around $2,400 per registrant for the current registration year.

[26] Based on WELS Scheme financial information provided to the Reviewer by the Department.

[27] Based on WELS Scheme financial information provided to the Reviewer by the Department.

Figure 6 shows the expected relative percentage breakdown of funding contributions to the WELS Scheme for the 2014–15 financial year to meet expected expenditures (not including revenue accruing to the special account from Commonwealth Government contributions). If these projections are correct, the WELS Scheme should exceed the 80 per cent cost-recovery target for industry contributions.

Figure 6. Projected relative funding contributions to WELS Scheme for 2014–15 to meet expenditure requirements (not including excess revenue accruing to special account)



Source: Aither, based on WELS Scheme financial details provided to the Reviewer by the Department of the Environment.

In the event that the expenditure forecast is exceeded, the Commonwealth Government is expected to cover the additional shortfall between actual expenditure and revenue collected through registration fees, and state and territory contributions (as has been required in past years). However, it is not expected that this will occur in 2014–15.

3.5.3 Comparison to previous years

Across previous years, WELS Scheme expenditure has been variable and in some years diverged substantially from that approved in the 2011 Strategic Plan. In 2012–13 expenditure reached a high of $2.81 million (about $1 million more than approved) and in 2013–14 was also above that approved (Table 5). Over the same period, revenue from registration fees has also varied; with only $47,000 recovered in 2012–13, leaving a shortfall of $2.4 million to be covered by the Commonwealth Government.[28]

[28] The fluctuation in recovered revenue reflects significant changes to the WELS Scheme's administration in recent years – including to cost-recovery arrangements and registration fees. For example, in 2012-13, almost $750,000 was refunded to registrants based on a movement from five year registration cycle to annual registration. In addition, between 2012-13 and 2013-14, close to $500,000 was spent by the Department to redevelop the WELS Scheme Product Database and associated IT infrastructure systems – which significantly increased expenditure from anticipated levels.

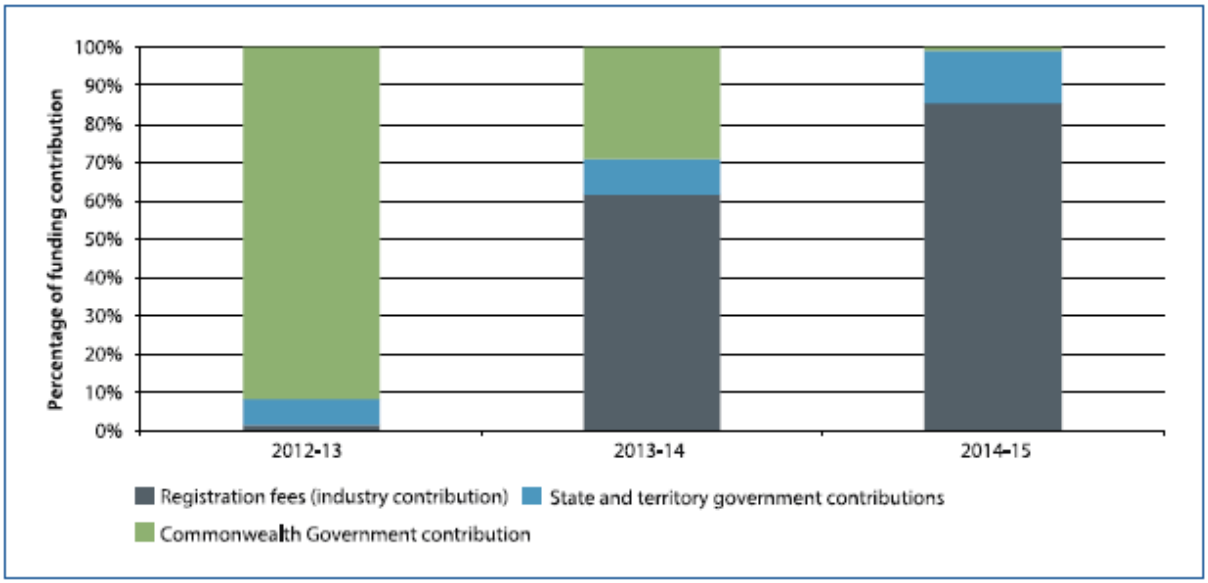
Table 5. WELS Scheme expenditure – approved versus actual – 2012 to 2015

Year	Approved budget	Actual expenditure	Revenue shortfall/surplus
2012–13	$1.85 million	$2.81 million	$(2.4 million)
2013–14	$1.91 million	$2 million	$(393,724)
2014–15	$1.96 million	$1.44 million[1]	$184,139[2]

Source: Australian Government 2011a and based on WELS Scheme financial details provided to the Reviewer by the Department of the Environment.
Note: 1) Figure is projected expenditure for this financial year. 2) Figure is projected surplus for this financial year.

As a result of fluctuations in expenditure and revenue, variations have also been observed in the relative funding contributions by different parties year on year (see Figure 7). The last three financial years have seen an almost complete reversal in relative contributions – mainly due to various ongoing reforms implemented to make meeting cost-recovery targets possible.

Figure 7. Relative funding contributions to WELS Scheme for 2012–13, 2013–14 and 2014–15 to meet expenditure (not including excess revenue accruing to special account)



Source: Aither, based on WELS Scheme financial details provided to the Reviewer by the Department of the Environment.
Note: 2014-15 financial year estimates are year to date and do not include the $184,000 of the Commonwealth Government's $196,000 contribution that is expected to accrue to the WELS Scheme special account as a surplus.

Since the establishment of the WELS Scheme (2005), the relative contributions between the Commonwealth Government and industry are fairly even (approximately 40 per cent each). This long-term average of contributions does not meet the WELS Scheme's 80 per cent cost-recovery target. This outcome has required all Australian governments (primarily the Commonwealth) to contribute significantly more funding than was originally approved.

4 Scheme evolution since the 2010 review

The First Independent Review of the WELS Scheme (2010 Review) was undertaken in 2010 by Dr Chris Guest. The 2010 Review assessed the appropriateness, effectiveness and efficiency of the WELS Scheme over the first five years of its operation. A number of the Review's recommendations were accepted in whole or in part by the Commonwealth Government, leading to significant changes to the WELS Scheme's operation in recent years. This current Review considers those changes – including whether they are achieving their intended outcome of improving the WELS Scheme.

Furthermore, a number of stakeholders consulted for this Review did not seem aware of certain material changes implemented in the past two years, or otherwise had inaccurate perceptions about the WELS Scheme's administration or operation. These perceptions may have in some cases clouded the views or information provided to the Reviewer. On this basis it is important that this Review document the previous changes so as to clarify any lingering confusion among stakeholders.

Key changes since the 2010 Review, covered in this section include:

- establishment of WELSOG and WELSAG
- reaffirmation of cost-recovery target
- introduction of annual registration periods
- introduction of civil penalties
- free publication of Amendment 6 to the WELS Standard (AS/NZS 6400:2005)
- changes to Amendment 6 to the WELS Standard (AS/NZS 6400:2005) to modify the definition of a product model, applicable registration fees and description of the types of flow controllers that must now be registered
- simplification of labelling requirements
- sets of minor product definitional changes.

The following subsections outline these changes made to the operation and administration of the WELS Scheme in recent years, as they relate to further discussions in this report.

4.1 Important changes to the WELS Scheme since 2010 Review

4.1.1 The establishment of WELSOG and WELSAG

As noted previously, prior to 2010 officials from all state and territory governments met and provided advice on the WELS Scheme's administration through the Water Efficiency Labelling and Standards Advisory Council (WELSAC). WELSAC was criticised for having a limited role in shaping the WELS Scheme and not enabling stakeholders (especially industry and consumers) to have a fair voice in its administration and future directions (Guest 2010).

The 2010 Review recommended that WELSAC be renamed the Water Efficiency Labelling and Standards Officials' Group (WELSOG) and the WELS Scheme establish a new advisory group to better engage with industry and consumers – namely the Water Efficiency Labelling and Standards Advisory Group (WELSAG) (Guest 2010). The joint government response agreed with this recommendation.

WELSAC was subsequently renamed WELSOG, and WELSAG was established in November 2010 (before the joint government response). The groups' ongoing purpose is to respectively communicate government and industry/stakeholder sentiment on the management of the WELS Scheme and to advise the Commonwealth Government on a range of matters related to its strategic direction.

The establishment and outcomes to date of WELSOG and WELSAG are important in this Review's assessment of the effectiveness of the WELS Scheme's stakeholder engagement (Section 8.2.2).

4.1.2 Reaffirmation of cost-recovery target

The WELS Scheme was established on a partial cost-recovery basis whereby 80 per cent of its operating costs would be borne by industry (recovered through registration fees) and 20 per cent would be covered by all Australian governments. In the first five years of operation, the WELS Scheme was unable to meet this target. Leading into the 2010 Review, this situation was viewed by the Commonwealth Government as financially unsustainable.

The 2010 Review recommended that any fees paid by registrants should cover the cost of the registration process only and combined government contributions should cover all remaining operating costs of the WELS Scheme – effectively revising down the 80 per cent industry contribution.

In response to the 2010 Review's recommendations, the then Department of Sustainability, Environment, Water, Population and Communities engaged Deloitte Access Economics to assess the future cost-recovery options for the WELS Scheme. The assessment found that some form of cost-recovery is considered appropriate as the scheme delivers identifiable private benefits as well as public good benefits. While Deloitte Access Economics acknowledged the difficulty in determining the exact public–private contribution split that should be implemented, it concluded that a midpoint of 60 per cent private: 40 per cent public contribution was a broadly appropriate target.

Notwithstanding this recommendation, in November 2011 the Council of Australian Government's (COAG) former Standing Council on Environment and Water (SCEW) reaffirmed retention of the 80 percent industry contribution on the basis of ensuring the financial sustainability of the WELS Scheme. Following the decision by the SCEW, in 2013 the Commonwealth Government passed the *Water Efficiency Labelling and Standards (Registration Fees) Act* 2013 (WELS Act 2013), which establishes the legal basis on which higher annual registration fees are now charged.

The reaffirmation of the 80:20 cost-recovery target is important in this Review's assessment of the appropriateness of the WELS Scheme's cost-recovery arrangements (Section 8.1.4).

4.1.3 Introduction of annual registration periods

Subsequent to the passing of the WELS Act 2013, the Water Efficiency Labelling and Standards Determination 2013 altered registration periods from a five year cycle to an annual cycle, and introduced an annual common expiry date (21 January) for all products. These changes were

introduced to increase the WELS Scheme's annual cash flow and secure its financial sustainability. These changes became effective on 22 January 2013.

The 2013 Determination also outlined the dollar value of fees charged to registrants for the annual registration of products. The new fee structure took effect from 15 September 2013 for the registration of products from 22 January 2014 to 21 January 2015 (see Appendix F).

The change from five yearly to annual registrations is important in this Review's assessment of the appropriateness of the WELS Scheme's design (Section 8.1.2), cost-recovery arrangements (Section 8.1.4) and regulatory burden (Section 8.1.5).

4.1.4 Introduction of civil penalties

Prior to the 2010 Review, the Regulator had a small range of criminal enforcement penalties that it could impose upon entities that were non-compliant under the WELS Scheme. Many stakeholders in the industry viewed these criminal penalties as heavy handed and unnecessary in the context of what the Scheme aims to achieve.

The 2010 Review recommended that a range of new compliance and enforcement options be implemented to foster a more balanced approach. Subsequent amendments to the WELS Act 2005 (July 2012) introduced civil penalties, which removed the need for pursuing costly criminal prosecutions in cases of non-compliance. The 2012 amendments also introduced a range of new compliance tools and stakeholder engagement approaches with the aim of lessening compliance burden on both industry and the Regulator.

The introduction of civil penalties is important in this Review's assessment of the effectiveness of the WELS Scheme's compliance and enforcement mechanisms (Section 8.2.4).

4.1.5 Free publication of Amendment 6 to the WELS Standard

Following public consultation in 2013, Amendment 6 to the WELS Standard (AS/NZS 6400:2005) was published on 16 September 2013. Normally, users are charged for access to standards such as this; however, the publication of this amendment saw it made freely available online in an agreement between the Commonwealth Government and SAI Global. Free publication in this manner was intended to remove cost impediments to industry adopting – and ensure free and fair access to – the WELS Standard.

The free publication of Amendment 6 to the WELS Standard is important in this Review's assessment of the effectiveness of reporting and communication (Section 8.2.3).

4.1.6 Changes to the WELS Standard through Amendment 6

Publication of Amendment 6 to the WELS Standard (AS/NZS 6400:2005) also made some changes to the number of models allowed per product registration, applicable registration fees, labelling requirements (including in advertising), and a technical description of flow controllers that must now be registered under the WELS Scheme.

It is understood that as part of the revision to the WELS Standard, changes have also been made to requirements about water efficiency labels. These changes are intended to introduce more flexibility for registrants to allow differing label sizes to be displayed as well as allowing them to display a black and white version of the label on cardboard packaging (or other products where colour printing is

not possible or prohibitively expensive). However, these changes to labelling had not been given legal effect at the time of writing.

Changes made to the WELS Standard through Amendment 6 are important in this Review's assessment of the appropriateness of the WELS Scheme's design (Section 8.1.2) and regulatory burden (Section 8.1.5).

4.1.7 Changes to the definition of 'sets of minor products'

Effective 22 January 2015, the Water Efficiency Labelling and Standards (Registration Fees) Amendment Determination 2015 (No. 1) and Water Efficiency Labelling and Standards (No. 2) Amendment Determination 2015 (No. 1)[29] made changes to the definition of 'sets of minor products'. Among other aspects, these recent changes remove the requirements to report product sales and of 'brand' and 'manufacturer' reporting. However, it is still a requirement that registrants do not sell more than 100 units of any minor product per annum and no more than 15 products can be registered under a set of minor products (see Box 2).

Changes to the definition of sets of minor products are important in this Review's assessment of the appropriateness of the WELS Scheme's cost-recovery arrangements and registration fees (Section 8.1.4).

4.2 2010 Review recommendations not implemented

The 2010 Review made a number of recommendations that were not accepted by government and have not been implemented, but are relevant to aspects of this Review. These include:

- Recommendation to transfer the administration of the WELS Scheme and responsibility for whitegoods to the E3 Program
  - Not agreed to on the basis that administration of the WELS Scheme should remain the responsibility of then Department of Sustainability, Environment, Water, Population and Communities. However, the government response opened up the opportunity for further exploration of this matter in 2014-15 (Australian Government 2011b).
- Recommendation to transfer responsibility for WELS Scheme plumbing products to the WaterMark Scheme
  - Not agreed to on the basis that administration of the WELS Scheme should remain the responsibility of then Department of Sustainability, Environment, Water, Population and Communities. However, the government response opened up the opportunity for further exploration of this matter on the basis of the now current review of the WaterMark Scheme (Australian Government 2011b).
- Recommendation that a single web portal be established to provide stakeholders with information on the WELS Scheme, WaterMark Scheme and Smart Approved WaterMark Program

[29] Amending the *Water Efficiency Labelling and Standards (Registration Fees) Act 2013* and *Water Efficiency Labelling and Standards Act 2005* respectively.

- Not agreed to on the basis that the WELS Scheme website was at the time undergoing a restructure (Australian Government 2011b).

These matters are relevant to this Review's assessment of the current WELS Scheme and assessment of future options, and will be revisited later in the report in Sections 8 and 9.

5 The role of related schemes

There are a number of schemes or programs in Australia that, while distinct from the WELS Scheme, are related and sometimes confused with the WELS Scheme (e.g. in relation to their respective administration, objectives, scope and product coverage). This can be exacerbated by the fact that some product types are covered by more than one scheme or program.

Clarifying the purpose, scope and operation of these schemes or programs is relevant in understanding the role and impact of the WELS Scheme, and provides context for conclusions drawn and recommendations made by this Review. Those discussed are the:

- WaterMark Scheme
- E3 Program
- Smart Approved WaterMark Program.

5.1 WaterMark Scheme

The WaterMark Scheme is a mandatory certification scheme for plumbing and drainage materials and products in Australia that ensures they are fit for purpose and appropriately authorised for use in plumbing installations (GWA 2014). Its focus is public health and safety, and product integrity. The WaterMark Scheme covers most plumbing products available in Australia, only a small subset of which is also required to have WELS Scheme registration.

The WaterMark Scheme is administered by the Australian Building Codes Board (ABCB) and is a subset of the National Construction Code (the Code). The ABCB is unincorporated and does not have its own enabling legislation. Unlike the WELS Scheme, the WaterMark Scheme is not established pursuant to any Commonwealth legislation and its administrator has no statutory or regulatory powers.

The National Construction Code (and therefore the WaterMark Scheme) is underpinned by an Intergovernmental Agreement (ABCB 2015). The Code derives its regulatory force through adoption of the Code by state and territory legislation (pursuant to the Agreement) and enforcement through building industry controls at local jurisdictional level.

The objectives of the WaterMark Scheme and the WELS Scheme have been described as ‘compatible, but…not interchangeable’ (GWA 2014).

5.2 E3 Program

In comparison to the WaterMark Scheme, there are greater parallels between the WELS Scheme and E3 Program. Similar to the WELS Scheme, the E3 Program is administered by the Commonwealth Department of Industry and Science and is established by Commonwealth legislation (*Greenhouse and Energy Minimum Standards Act 2012* (Cwlth)).

The aim of the E3 Program is to promote the development and adoption of products that use less energy, produce fewer greenhouse gases and contribute to reducing the amount of energy used, or greenhouse gases produced (Australian Government 2015c). The Program does this through

encouraging consumers to select products at point of sale that use the least amount of energy and by setting a range of Minimum Energy Performance Standards.

Out of the close to 15 mandatory electrical product categories that the E3 Program covers, only two are similarly covered under the WELS Scheme (dish washing machines and clothes washing machines). Furthermore, registrations under the Program are for five year periods, unlike the WELS Scheme which recently moved from five yearly registration periods to an annual registration cycle.

Despite these differences, the E3 Program is also a mandatory consumer advisory scheme, and compliance with the Program is enforced at point of sale in similar ways as the WELS Scheme. In addition, the revenue generation model of the Program is not dissimilar to the cost-recovery arrangements currently in place under the WELS Scheme (although the annual budget is substantially larger under the E3 Program based on the larger total number of products registered).

5.3 Smart Approved WaterMark Program

The Smart Approved WaterMark Program is a voluntary unincorporated not-for-profit program which aims to identify, certify and promote innovative products and services that are water efficient, educating consumers on the importance of water conservation and championing innovative solutions for sustainable water use (SAWM 2015).

The program principally covers the voluntary certification for outdoor water-using products and services (such as: irrigation equipment; mulches; plant pots; pool covers; spray cleaners, and soil conditioners) but also includes some 'internal' water-using equipment (notably, commercial glass washers). Product applications are assessed by the Program's independent Technical Expert Panel who reserve the right to approve products and license the use of the Smart Approved WaterMark logo. Unlike the WELS Scheme, registrations are for a period of two years.

The Smart Approved WaterMark Program can be characterised as being complementary to the WELS Scheme, promoting water efficient products or services which are not covered by the WELS Scheme.

A more extensive matrix style comparison of the schemes mentioned above and how they differ from the WELS Scheme and each other is provided at Appendix G.

Part B. Benefits and costs

6 WELS Scheme benefits

This section presents a number of known benefits that the WELS Scheme provides to consumers, industry, government and broader society. Attribution of these benefits to the WELS Scheme is presented using quantitative data where possible; however, qualitative data from literature and stakeholder consultations is used where no or poor quality quantitative data exists. This section aims to document benefits only, and any assessment of these is reserved for discussions in Section 8.

6.1 Types of benefits

Given the WELS Scheme covers interactions between consumers, industry and governments, benefits are likely to be both localised to stakeholder groups (easier to measure and report on) and spread across the wider community (likely to be more qualitative and anecdotal in nature).

The major benefits of the WELS Scheme include:

- Water savings – reductions in water consumption leading to benefits associated with the deferral of investment in water supply infrastructure and enabling existing water supplies to be used for alternative (potentially higher value) uses
- Reduction of regulatory duplication with other jurisdictions – benefits associated with the ability of other government entities and water utilities to 'piggyback' off the WELS Scheme (through rebates, other regulations, codes etc.) and avoid costs associated with establishing and administering their own schemes and frameworks
- Improved consumer decision making and financial benefits – resulting from consumers being able to make more informed decisions about what products to purchase and thus using less water, electricity and gas, leading to reductions in utility bills
- Marketing benefits to manufacturers – financial benefits to industry participants resulting from the ability to differentiate products through labels and marketing campaigns, leading to improved sales or competitive advantages
- Broader environmental benefits – including reductions in aggregate energy consumption and greenhouse gas emissions.

6.2 Benefits derived

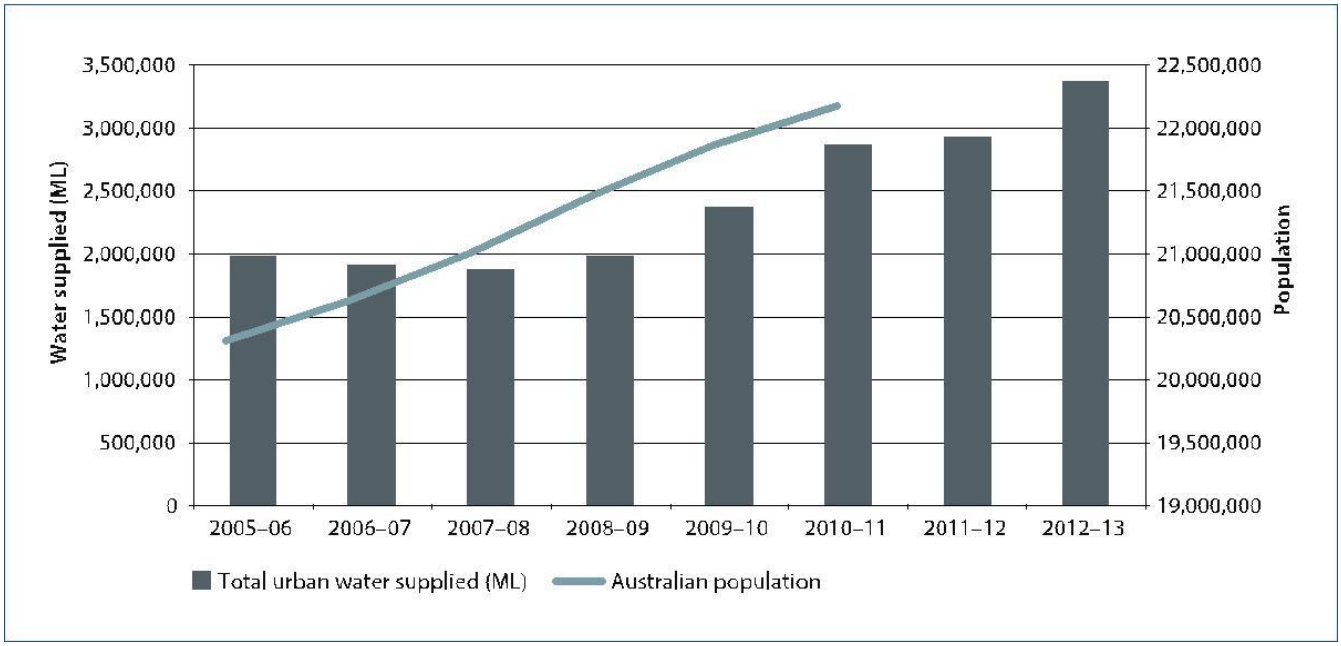
6.2.1 Water savings

Over the past decade, the WELS Scheme has been one element of a broader suite of demand management measures implemented by urban water resource managers to reduce Australian society's water consumption (Section 2.2). However, it is difficult to disaggregate what impact each discrete measure has had on changes in water consumption over that time. Despite this challenge, the below section attempts to draw links where possible and highlight the benefits of water saved under the Scheme.

Observed reduction in water consumption across Australia

Between 2005–06 (establishment of the WELS Scheme) and 2012–13, the total volume of urban water supplied across Australia rose and the per capita volume of water supplied also rose since 2008–09 (Figure 8). However, in the years between 2005–06 and 2007–08, the total volume of urban water supplied fell by approximately 6 per cent, while over the same period the Australian population grew by 3.4 per cent – leading to an improvement in per capita consumption in those years.

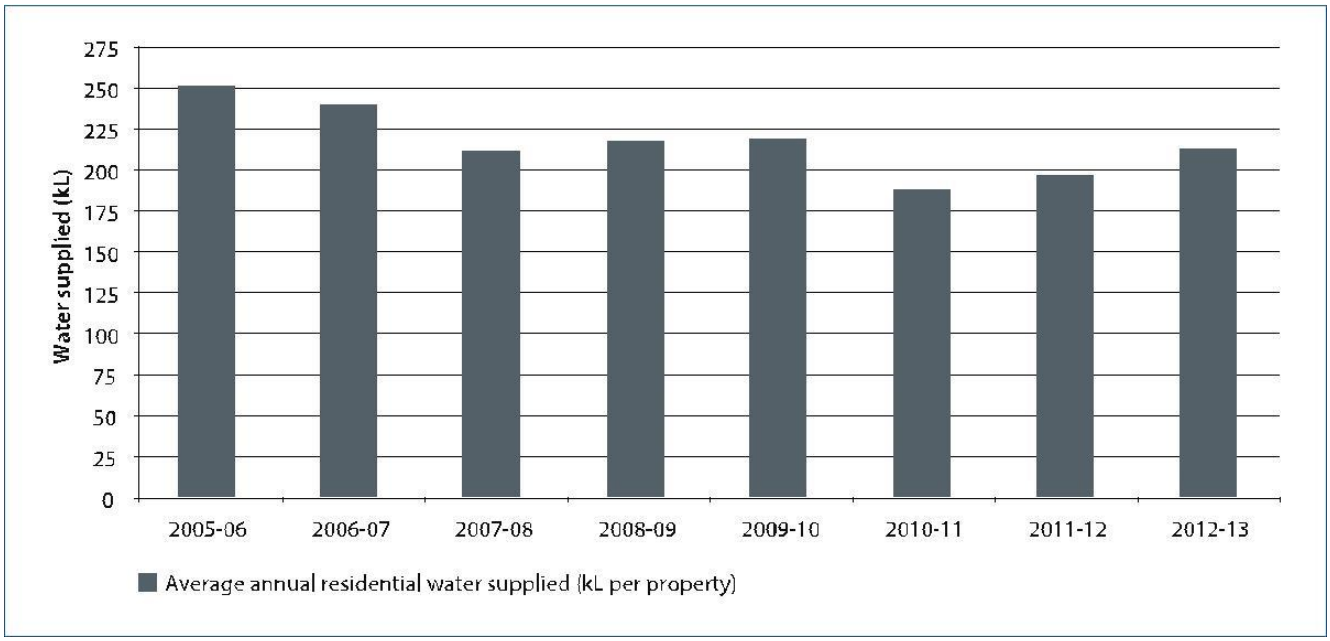
Figure 8. Total urban water supply in Australia per annum compared to population growth



Source: NWC 2014 and ABS 2014.

While total per capita supply has increased in recent years, the average volume of water supplied to residential properties per annum has fallen across Australia (NWC 2014) – a 15 per cent drop between 2005–06 and 2012–13 (Figure 9).

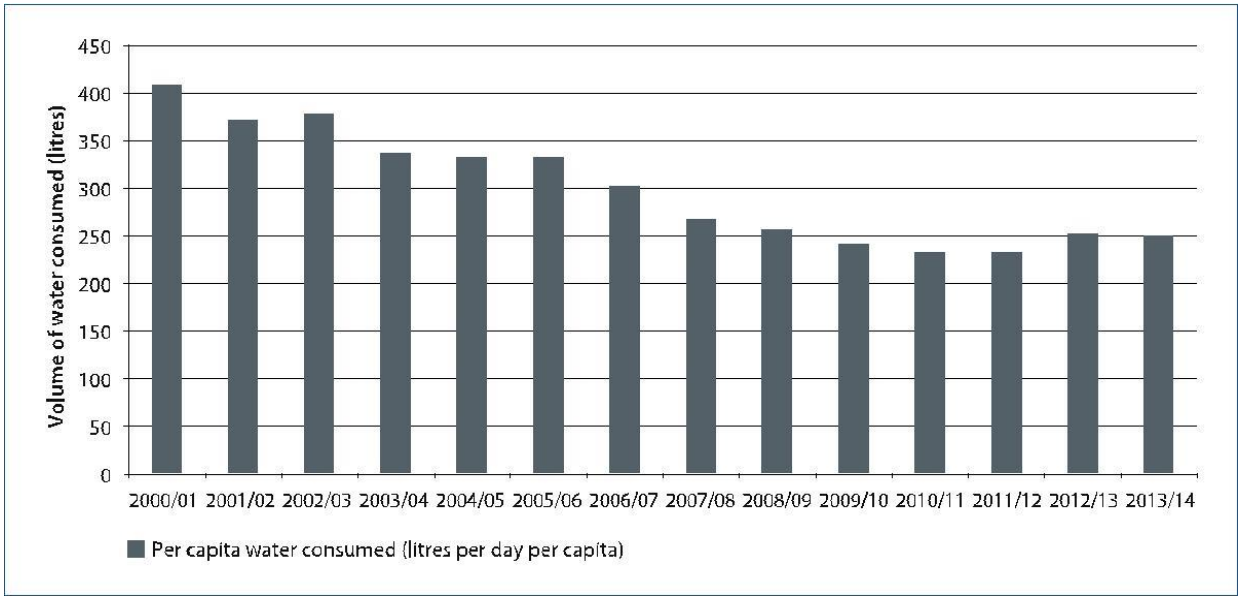
Figure 9. Average annual residential water supplied in Australia – 2005-06 to 2012-13



Source: NWC 2014.

Declines in water supplied per property across Australia is corroborated by evidence from Melbourne, which shows that since a peak in 2001, water consumed per day per capita has generally fallen year on year, being 38.5 per cent lower in 2014 than in 2001 (Figure 10).

Figure 10. Average volume of water consumed per day per capita in Melbourne – 2000–01 to 2013– 14



Source: CWW 2015a.

Since about 2010–11 (Figures 5 and 6) consumption of water began to slowly increase. This increase is likely to reflect a relaxation of severe residential water restrictions across much of Australia and removal of a number of short-term demand management measures. However, the fact that

residential water consumption has not rebounded to early 2000 levels is likely to reflect longer-term measures (such as the WELS Scheme) that have more permanently reduced water consumption.

A reduction in water consumption in properties should be reflected in the amount of wastewater exiting households (measured by sewage collected per property). According to data collected by the National Water Commission (NWC) over the past decade, the average amount of sewage collected per property is approximately 10 per cent (or 22 kL) per annum lower in 2012–13 than in 2005–06. This overall reduction in sewage output aligns with what would be expected based on the general trend of reductions in urban water consumed over the same period.

In summary, there has been a noticeable decline in per capita water consumption across Australia over the past decade, which in part may be attributed to the combined demand management measures – especially between 2005–06 and 2010–11.

Water savings attributed to the WELS Scheme

Since the WELS Scheme's establishment, a number of studies have been undertaken which model projected water savings. A 2008 study modelled both estimated past and projected annual water savings attributable to the WELS Scheme (ISF 2008). This study estimated that by 2021, adoption of water efficient products under the WELS Scheme could lead to water savings of more than 100,000 Megalitres (ML) per annum – with the majority of water savings attributed to the adoption of more efficient clothes washing machines and showers (ISF 2008).[30]

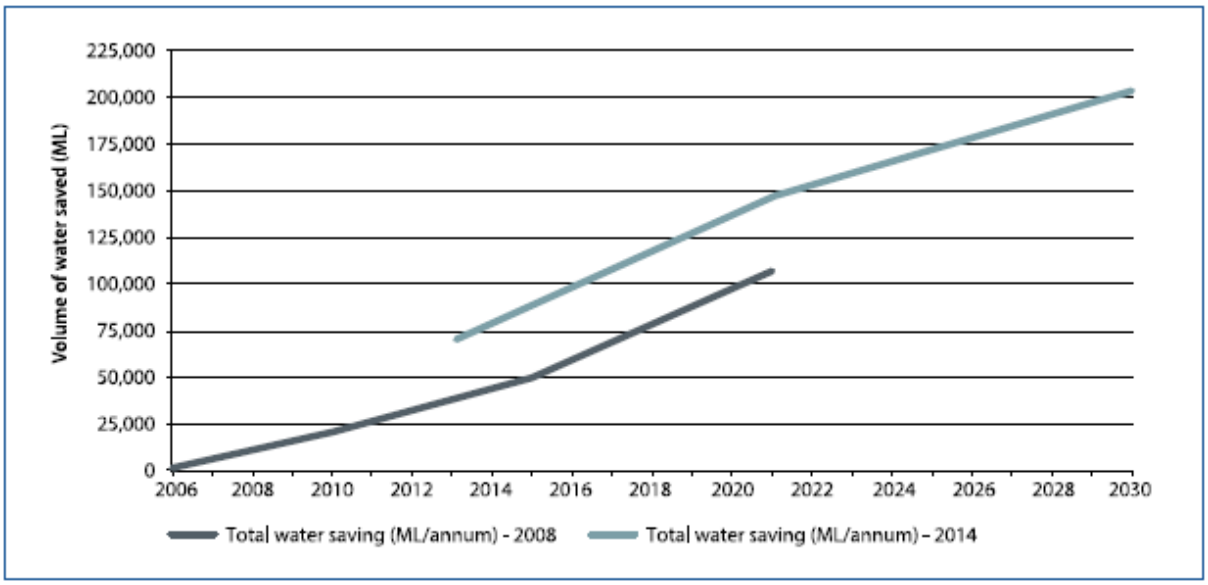
In 2014, the Department commissioned a follow-up study which updated modelling undertaken in 2008 (ISF 2014). The 2014 study revised projected water savings upwards, estimating that the WELS Scheme had saved 70,000 ML of water in 2013, and expected savings of 204,000 ML per annum to be realised by 2030 (ISF 2014) – equivalent to more than three-quarters of Melbourne's total current annual residential water use (Melbourne Water 2015).[31] By 2030, it is projected that the WELS Scheme will have saved approximately 2,853 Gigalitres (GL) of water, with the majority of savings expected to be come from the increased adoption of more efficient showers and taps (ISF 2014).

Figure 11 shows a comparison of the water savings projections made in 2008 and 2014. Projections made in 2008 differ by a large margin from those made in 2014. This difference is explained in part by a conservative estimation in 2008 about the level of adoption of more efficient products. The Reviewer is not in a position to review the validity of the modelling, but despite the notable difference in projections between the two studies, is satisfied that the water savings projections made in 2014 are the most robust that exist.

[30] To calculate potential water savings, the Institute for Sustainable Futures (ISF) used a method based on calculating the difference between water savings under a mandatory scheme and under a voluntary water efficiency scheme if it had continued to operate. Modelling and projections were made based on data provided by George Wilkenfeld and Associates, the Australian Bureau of Statistics (ABS), other sources of sales data, and stakeholder consultations.

[31] The method used by the ISF in 2014 to calculate the potential water savings utilised end use modelling and appliance cohort component stock modelling approaches. Importantly, ISF's analysis did not include water savings already 'in the pipeline' prior to the commencement of the WELS Scheme (e.g. minimum performance requirements stipulated in plumbing or building codes and other regulations).

Figure 11. Projections of annual WELS Scheme water savings – 2006 to 2030



Source: ISF 2008 and 2014.

Observed reductions in water consumption attributable to the adoption of water efficient products

A number of end use (household) water surveys have recently been undertaken across Australia. In part these surveys have observed and assessed the impact that water efficient products and behavioural change have had on household water use. One such paper recently published by the Goyder Institute (Arbon et al. 2014), *Understanding and Predicting Household Water Use for Adelaide,* presents a comprehensive study of household water use.[32]

Comparing households that have efficient showers, toilets and clothes washing machines to those without,[33] the study found a potential reduction in daily water use of approximately 20 litres per person per day if efficient products were present. Importantly, the Arbon et al. (2014) study concluded that reductions in household water consumption were driven by the relative efficiency of water-using products in the household and not primarily by the behavioural characteristics of persons occupying the premises. That is to say there was no significant difference between water-use behaviours in households with and without efficient products.

Finding 1:

The adoption of water efficient products should, all things being equal, result in reduced water consumption regardless of behavioural characteristics.

[32] Arbon et al. (2014) used 10-second high-resolution water meters across 150 Adelaide properties to measure household water use for one year, in combination with household surveys and flow trace analysis to identify behavioural characteristics of water use.

[33] In the Arbon et al. (2014) study, efficient water-using products were defined as WELS 3 star showers or above, WELS 3 star or above toilets and front loader clothes washing machines (no star rating required and assumed as more water-efficient than top loader clothes washing machines).

The findings of the Arbon et al. (2014) study are generally corroborated by other recent peer reviewed research focussing on similar topics:

- A 2011 end use water study in south east Queensland found that the installation of more water efficient products (clothes washing machines, taps, showers and dish washing machines) in a household reduces total household water consumption. The study also found that more water efficient products in households leads to statistically significant reductions in peak-hour water demand (Beal and Stewart 2011).
- A 2012 study in south east Queensland that quantified the influence of residential water appliance efficiency on water use found that households with more efficient water-using products reduced total consumption but also reduced peak water demand (Carragher et al. 2012).
- A 2009 study on the Gold Coast (Australia) on the impact that efficient devices had on end use water consumption found that changing to a WELS 3 star showerhead in each household should result in annual per capita water savings of 11.3 kL (or 48 per cent improvement in water used by the shower). The study also found that replacing an inefficient clothes washing machine (less than WELS 3 star) with one that is highly efficient should reduce water consumption by 14.1 kL per person per year (or a potential 73 per cent reduction in consumption from clothes washing machines) (Willis et al. 2009).

Attributing reductions in water consumption to the WELS Scheme

The finding that installing water efficient products delivers reductions in water consumption regardless of behaviour supports the hypothesis that the WELS Scheme (which promotes the adoption of more efficient products) is delivering these reductions. On this basis, modelled water savings (based on historical and anticipated future shifts in sales data) attributed to the WELS Scheme should reflect actual reductions in water consumption, given the adoption of more efficient products in households does result in reduced consumption.

Despite this, the majority of stakeholders agreed that isolating and apportioning the precise amount of reduction that could be attributed to the WELS Scheme was challenging, if not impossible. While it is difficult to categorically attribute portions of broader reductions in water consumption directly to the Scheme, the multiple lines of evidence suggest it is likely the Scheme is making a substantial contribution.

Finding 2:

The WELS Scheme has contributed to observed reductions in water consumption, and the conservation of water supplies across Australia.

Benefits of reduced urban water consumption

A reduction in urban water consumption has three main benefits:

1) deferral of investment in water supply infrastructure, which can contribute to greater availability of financial resources and helps prevent increases in costs, which flows through as a saving in consumer water bills
2) allowing water not used for urban water purposes to be used for alternative (potentially higher value) uses

3) reductions in the volume of wastewater treated and discharged, which has financial benefits for utilities and consumers as well as environmental benefits.

Deferral of investment in water supply infrastructure

As a whole, demand management measures which have reduced per capita consumption of water over the past decade are likely to have played a role in decisions to defer investment in major water supply infrastructure. Stakeholders corroborated that potential investments deferred include: new, or extensions to, water storage dams; construction of, or upgrading, desalination plants and water recycling facilities; purchasing water on the market from non-urban users, and water treatment facilities and reticulation system development or upgrades.

A number of water utilities and state government departments that were consulted suggested that the water savings that the WELS Scheme has delivered, and is expected to deliver, are used as inputs in long-term water demand forecasts. These forecasts are used to inform water supply planning and decisions about whether to invest in supply infrastructure.

However, despite the water consumption reductions, the past decade has seen unprecedented investment in water infrastructure in Australia due to major drought and other factors. This makes it difficult to establish the relative contributions of different demand management measures – including the WELS Scheme – on deferring any planned infrastructure investment. Stakeholders consulted suggested that water saved due to the Scheme likely played a part in decision making processes, but also that any decisions to defer investment have been based on reductions in water consumption from combined demand management measures and increased inflows to supply catchments.

Finding 3:

Water savings achieved by the WELS Scheme have likely played a role in decisions to defer investment in water supply infrastructure; however, the precise extent of this contribution is difficult to determine.

Alternative use of water

While not explicitly articulated as an object of the WELS Act 2005 – but arguably an implicit object – water saved under the WELS Scheme could in theory be 'freed up' for other beneficial uses across the economy, such as making more water available for agriculture purposes, the environment and other non-urban uses.

Although it may follow that water not required for urban consumptive uses is available for other uses, this depends on the nature and location of alternative demands. If water saved is located in interconnected systems then it is possible that water not used for urban consumption could be used for other purposes (as might be the case in regional townships). Similarly, where water saved is not drawn from interconnected groundwater sources that service other users (such as agriculture), then it is plausible that it could be used by others.

However, where there is limited connection between urban water catchments and systems serving other users, it is unlikely that water saved will be able to be used for other non-urban purposes. For example, certain agricultural users may not have physical access to urban water systems where savings have been made and are being stored.

The Reviewer was not provided with, and was unable to find any specific evidence, of how urban water saved under the WELS Scheme might have been used in alternative non-urban uses. It is unlikely that such connections could be established based on current information and data collected.

Finding 4:

It is reasonable to conclude that water not used for urban consumption could in some circumstances be used for other purposes, but it is not possible to determine the extent that water savings achieved by the WELS Scheme have been used for agriculture, the environment and other non-urban uses.

Wastewater treatment and discharge reductions

If reductions in society's per capita consumption of water (of which the WELS Scheme has likely played a role – see Finding 2) flow through to reductions of the volume of sewage treated and discharged, it could likely deliver financial benefits for both utilities and consumers. While benefits of this nature for consumers are discussed further in Section 6.2.3, avoided costs are likely to be realised by water utilities, based on reduced operating treatment costs and longer-term capital costs associated with upgrading wastewater networks. All else being equal, these reduced costs should accrue to water users and governments, based on the building blocks price setting approach to regulated water and sewerage services.

Valuing water savings benefits achieved by the WELS Scheme

It is possible to estimate the economic value of water-saving benefits achieved by the WELS Scheme by considering the cost of supplying the water saved through alternative means. While a number of studies have identified theoretical and applied problems with the use of long-run marginal cost (LRMC) of an additional unit of water supply (Smart Water Fund 2012 and NERA 2014), LRMC is often used to calculate the cost of additional supply, and can be used in this context to obtain a broad indication of the economic value of the water savings.

Estimates of LRMC are dependent on key characteristics of each urban water supply system (e.g. the augmentation options available and existing levels of demand relative to supply). However, LRMC estimates are often between $0.50 and $2.00 per kL for dam fed supply, depending on location (ACTEW Corporation 2007).

ISF (2014) estimated that by 2013, since 2005, the WELS Scheme had saved a total of 607 GL of water. In 2015 the cumulative figure is likely closer to 747 GL of water saved (based on estimated savings of 70 GL per annum). On this basis, it is likely that the Scheme has, as of 2015, delivered water savings worth between $373.5 million and $1.5 billion. If projections about water savings up to 2030 are correct, the value of future savings could be as high as $3.3 billion.[34] Cumulatively, this means the total economic value of water savings could be as high as $4.8 billion (in 2015 dollars).

[34] Calculated using a net present value (NPV) calculation based on ISF 2014 cumulative water savings projections and a 6 per cent discount rate over future years.

Finding 5:

The estimated economic value of water saved under the WELS Scheme as of 2015 could be as high as $1.5 billion, and if the Scheme continues and projections are realised, the cumulative economic value could be as much as $4.8 billion by 2030.

6.2.2 Reduction of regulatory duplication with other jurisdictions

Research commissioned in 2014 by the Department found that the WELS Scheme was referenced in at least 32 past and present government regulations, policies and codes including: 19 water efficiency rebate programs; four energy efficiency programs; six building codes, regulations and rating schemes; and three tenancy laws (ISF 2014). The efficient and effective cross referencing of government regulation in this way should lead to reductions is regulatory duplication, which should deliver benefits and avoided costs for stakeholders across the economy.

Reference in rebate programs and government policy

While many of the 19 water efficiency rebate programs identified in the 2014 study mentioned above have concluded over the past five years,[35] a number of programs continue to exist, for example:

- Living Victoria Water Rebate Program (Victorian Government) – a rebate program covering WELS Scheme rated showerheads, dual flush toilets and clothes washing machines. The program is due to terminate in June 2015 (DELWP 2015) and its continued operation has not been determined as at the date of writing.
- Showerhead Exchange (Victorian water retailers) – a number of Victorian retailers continue to offer an exchange program which allows participants to exchange existing showerheads for WELS 3 star or above showerheads free of charge (YVW 2015 and CWW 2015b).
- H2O Assist (Water Corporation) – a program that provides customers with affordable water efficient products that are delivered and installed by a licensed plumbing company. The program currently covers dual flush toilets, offering customers three different WELS 4 star toilet products that range from $440 to $730 (Water Corporation 2015).
- Whitegoods for concession card holders (Sustainability Victoria) – under this program the Victorian Government provides a $100 rebate to concession card holders towards the purchase of new clothes washing machines that meet a minimum WELS 4 star rating and are purchased through No Interest Loan Scheme providers (Sustainability Victoria 2015).

Government stakeholders were generally of the opinion that without the WELS Scheme, the numerous water efficiency rebate and similar programs of the past decade would have not been as successful and would have cost sponsoring entities significantly more – potentially even preventing their establishment altogether. While it is difficult to quantify how much cost has been avoided, there was agreement that use of the WELS Scheme as a framework or reference point in this way allows governments and water utilities to avoid substantial costs associated with the development of

[35] It should be noted that rebates are not offered under the WELS Scheme itself. However, a range of other entities (such as local water authorities or state governments) do offer rebates on certain products that are registered with the WELS Scheme.

their own water efficiency rating systems. On this basis, use of the WELS Scheme clearly reduces unnecessary and costly regulatory duplication across different levels of government.

WaterMark Scheme point of sale control

As noted in Section 3.4, there is a requirement that for registration of certain products WELS Scheme registrants must provide a valid WaterMark Licence to accompany the application. Departmental staff undertake a check of this licence to assess whether it is fraudulent. If found to be fraudulent or inaccurate the product is not registered with the Scheme and is technically not allowed to be sold on the Australian market.

The WaterMark Scheme itself does not have point of sale control (it is normally enforced by state-based building regulators at point of product installation). The WELS Scheme requirement effectively provides point of sale control for those WaterMark Scheme products which are also WELS Scheme regulated, where there would otherwise be no such control. Stakeholders consulted acknowledged that the independent verification of WaterMark Licences by the WELS Scheme registration team delivers some avoided costs to regulators governing WaterMark compliance.

Codes and regulations

The WELS Scheme is also referenced in a number of state-based construction and plumbing codes. It is noted in Volume Three of the National Construction Code (Plumbing Code of Australia), which some states such as New South Wales adopt as the technical standard for plumbing and drainage work.[36] Stakeholders noted that such references allow plumbers, builders and property managers to make more informed and quicker decisions (i.e. less costly) about what water-using products to purchase and install. Adherence to these guidelines and reference to the WELS Scheme also makes the job for regulators easier and less time intensive because they are easily able to use the Scheme as a framework on which to make judgements.

Procurement guidance

In addition to referencing the WELS Scheme in community programs, a number of government entities use it as a framework for guiding internal and external procurement purchase decisions. It is understood that some local governments and utilities have internal procurement policies that reference the Scheme and stipulate minimum WELS star ratings for purchase decisions. For example, the procurement by a local government of plumbing products for installation in public washroom facilities may stipulate that a minimum of WELS 4 star toilets must be purchased. The use of the WELS Scheme in this way avoids time costs in the procurement process because procurers can be confident that a product meets certain water efficiency standards without manually checking individual product details and having to make harder comparisons.

[36] The Plumbing Code of Australia stipulates that cold water outlets for showers, basins and kitchen sinks must not have a flow rate of more than 9 litre per minute (ABCB 2015). While the code doesn't specifically reference the WELS Scheme on this point, this stipulation effectively means that all showers and taps installed into new premises should function as a WELS 3 star (or above) product – this is because even if the tap installed has a 12 litre per minute flow rate (WELS 2 star tap), no more than 9 litre per minute can ever exit the outlet and flow through the tap.

Marketing
The WELS Scheme and rating framework has also been used by a number of state and local governments and water utilities across Australia in promotional material explaining the benefits to consumers of becoming more water efficient. The Scheme's inclusion in this promotional material provides a recognisable and trusted point of reference for recipients. This level of trust potentially improves the impact that the material has on changing consumer behaviour, and ultimately benefits governments and utilities as well as consumers.

International reference
In addition to domestic use and reference, a number of international jurisdictions directly use or have based their respective water efficiency schemes on the WELS Scheme. For example:

- The New Zealand water efficiency scheme is based on the same standard as the Australian Scheme (AS/NZS 6400), relies on the Australian WELS Scheme for registration of products (as there is no registration process in New Zealand) and uses the same labels. The Australia–New Zealand Trans-Tasman Mutual Recognition Arrangement (TTMRA) enables the unrestricted flow of WELS products between both nations (Ministry for the Environment 2015).
- The Singapore water efficiency scheme, while having some unique attributes, echoes many of the same core concepts of the Australian WELS Scheme – including an online register of products, similar product coverage (with dish washing machines the notable exception) and point of sale compliance (PUB 2015). The Reviewer is aware that representatives of the Singapore national water agency have undertaken previous study tours to Australia to talk with water utilities and agencies regarding the Australian WELS Scheme.[37]

Summary
Reference to and use of the WELS Scheme both domestically and internationally should in theory avoid costs associated with regulatory duplication. This in turn should create a more efficient regulatory environment which can deliver improved benefits to stakeholders. An overwhelming majority of stakeholders viewed the Scheme's existence and ability to be used and adapted as a point of reference for related water conservation and sustainability purposes as providing benefits to state and local governments, water utilities, regulators, and ultimately consumers and Australian society.

Finding 6:

Reference to and use of the WELS Scheme avoids regulatory duplication and directly enables the operation of various water efficiency programs at the state or local level, and other regulatory enforcement.

6.2.3 Improved consumer decision making and associated financial benefits

The WELS Scheme provides consumers with valuable product specific water efficiency information that, in its absence, may not be provided. This is intended to address the issue of information

[37] A more detailed discussion about international water efficiency labelling schemes can be found at Appendix H.

asymmetry between consumer and manufacturer or seller – that is, where the manufacturer or seller has better information than the consumer, which creates a power imbalance in the purchasing decision. Most stakeholders consulted for this Review believed that the amount and complexity of information currently provided was adequate to address the issue of information asymmetry. On this basis, they agreed that consumers were being provided with the tools to make better and more informed decisions about which products to purchase than was the case under previous (voluntary) arrangements.

Recent market research suggests that in most circumstances consumers are actively using water efficiency information provided under the WELS Scheme to inform decisions about what product to purchase (Quantum 2014). If it is assumed that use of this information leads to improved decision making – i.e. the rational choice by consumers to select the maximum performing product they can afford or are willing to pay, recognising the savings it might deliver – there should be higher rates of adoption of more water efficient products and subsequent reductions in water consumption, which should benefit both consumers and society.

The adoption of more efficient products and the subsequent reduction in household water consumption (and associated reductions of electricity or gas use) should lead to a reduction in utility bills for consumers. In 2008, it was estimated that the Australian public could potentially avoid between $800 million and $2 billion per annum in water and energy costs though the adoption of more efficient products (ISF 2008). More recent analysis found the adoption of more water-efficient products under the WELS Scheme led to a financial benefit in 2013 for Australian households of $520 million in reduced utility bills (ISF 2014). It is projected that by 2030 this saving could rise considerably to over $2 billion per annum (ISF 2014). It was further estimated that the cumulative financial savings to Australian households associated with the Scheme could be as high as $26.3 billion by 2030 (ISF 2014).

Finding 7:

Reductions in water consumption (and associated reductions of electricity or gas use) due to the adoption of more water efficient products under the WELS Scheme has likely delivered, and should continue to deliver, financial benefits to users of those products.

While consumers realise fairly immediate financial benefits from reduced water, electricity and gas use, in most cases there is less immediate benefit to consumers associated with reduced sewage discharged. In Melbourne, households incur a volumetric based (i.e. a variable) sewage disposal charge that is calculated by reference to the volume of water purchased. A decrease in water consumed is reflected in a lower water charge and a lower sewage disposal charge. However, across the nation sewage charges are predominantly fixed (either in amount or by reference to a rateable value of the property). In these cases, reducing sewage discharged has no immediate impact on consumers' utility bills and does not directly lead to financial benefits.

In the long-term, however, it is reasonable to expect that reduced volumes of sewage will lead to lower bills in that reduced total sewage volumes translates to lesser transfer, treatment and disposal costs for utilities. This in turn lowers their capital and operating cost base and should, in an environment of economic regulation, be reflected in the prices set (or adopted) by utilities in subsequent charging periods.

6.2.4 Industry marketing benefits

The existence of mandatory point of sale labelling under the WELS Scheme potentially offers marketing benefits for those products that are able to deliver superior performance (water efficiency compared to price) over other competing products. The Scheme highlights water efficiency performance differences between products, and all other factors being equal, rational consumers are likely to reward manufacturers of higher performing products by purchasing them. The marketing benefit afforded to manufacturers is only enhanced by the fact that consumers have a high degree of trust in the WELS Scheme and its star rating due to it being government regulated.[38]

On this basis, it can reasonably be expected that the majority of marketing benefits realised by manufacturers or retailers will accrue to those producing or selling highly-efficient products (e.g. the water efficiency rating is more likely to be highlighted as a selling point the higher it is).

Conversely, it is unlikely that those producing or selling inefficient products will realise many marketing benefits from the water efficiency rating of their product(s). In fact, if the rating is low (i.e. less than WELS 3 star appears to be the perceived benchmark), it could hinder the ability to market the product, making it less competitive. While one of the objectives of the WELS Scheme is to promote the adoption of efficient products, some stakeholders believed that a focus on this disadvantaged some manufacturers that produce entirely legal, albeit inefficient, products.

While it is assumed that marketing benefits are inherently realised to some extent, consultations provided limited evidence on this point. Anecdotal evidence was provided by stakeholders that whitegoods manufacturers gained a greater marketing benefit from mandatory water efficiency labelling than plumbing product manufacturers (excluding showers and flow controllers). It was argued that this related to consumer use of the labels at point of sale, in that they look for and expect to see water efficiency labels on whitegoods, showers and flow controllers but not for other plumbing products (see Quantum 2014).

Finding 8:

Due to mandatory labelling at point of sale, the WELS Scheme is likely to provide marketing benefits to manufacturers producing, and retailers selling, highly water efficient products.

6.2.5 Broader environmental benefits

In addition to the benefits delivered by the WELS Scheme discussed above, there are a range of broader environmental benefits associated with water savings and reductions in consumption. Research undertaken in 2008 estimated that by 2021, the adoption of water efficient products under the WELS Scheme could potentially decrease greenhouse gas emissions by around 0.4 megatonnes annually (ISF 2008). More recent research undertaken in 2014 estimated that the WELS Scheme would contribute to a cumulative reduction of more than 46 megatonnes of CO2 equivalent by 2030 (ISF 2014). These reductions in greenhouse gas emissions are calculated based on avoided water

[38] Market research undertaken in 2014 indicated that 83 per cent of consumers viewed the WELS Scheme as ‘very’ or ‘quite’ credible, and that because it is a government regulated initiative they have confidence in the information provided (Quantum 2014).

treatment and pumping costs (both water supply, and wastewater collection and treatment) and avoided domestic water heating as a result of reduced consumption.

Finding 9:

The adoption of more water efficient products under the WELS Scheme contributes to wider environmental benefits through reduced greenhouse gas emissions.

In addition to avoided greenhouse gas emissions, reductions in water consumption should result in less stressed water systems and urban water catchments, reduced pressure on the need to undertake inter-basin transfers, and could lead to more water being available for environmental activities (in situations where water is saved in connected systems).

6.3 Benefits summary

The WELS Scheme delivers benefits to many individual stakeholders (particularly consumers, utilities, industry participants and government), but also to the environment and society more generally. In summary:

- the WELS Scheme has played, and will continue to play a role in, reducing per capita water consumption leading to overall water savings
- through use of the WELS Scheme as a national reference point on which to base other schemes, regulations and policies, costs have been avoided by governments, utilities and other stakeholders
- it is likely consumers benefit from information provided under the WELS Scheme which enables them to make more informed decisions about which products to purchase
- reductions in water consumption (and associated reductions of electricity or gas use) due to the adoption of more water efficient products under the WELS Scheme should lead to financial savings for consumers
- some manufacturers and retailers of highly-efficient products are likely realising marketing benefits from mandatory labelling enforced under the WELS Scheme
- associated greenhouse gas emissions have already been avoided, and should be avoided in the future, as a result of the WELS Scheme.

6.4 Distribution of benefits

In addition to considering the nature of benefits, it is important to consider how these are distributed across different stakeholder groups (Table 6). This distribution of benefits informs other aspects of the Review – including assessment of the appropriateness of current cost-recovery arrangements in Section 8.1.4.

Table 6. Distribution of benefits achieved by the WELS Scheme

Group	Benefits
Consumers	Consumers benefit from the ability to make more informed decisions about purchasing water-using products. This enables them to select products more suited to their needs and may lead to financial savings. These savings result from more efficient products that use less water (and associated electricity and gas), and are likely to be substantial given the lifespan of many products. Where use of water (as well as sewage disposal) is charged volumetrically, additional consumer benefits may also be realised.
Government	Governments, especially state and local, benefit from the ability to use the WELS Scheme as a reference point on which to base other schemes, regulations and policies. Avoidance of regulatory duplication costs by governments, utilities and other stakeholders are reported to be high. The Scheme's role in decisions to defer water supply investment also potentially delivers substantial benefits. The Scheme provides state and territory governments with the ability to manage water resources in times of scarcity.
Industry	It is likely that less direct benefits accrue to industry than other stakeholders. Possibly marketing benefits are realised by some manufacturers or suppliers of highly efficient products, but the extent of this benefit is difficult to establish.
Society	There are likely benefits to society (or at least those who are connected to urban water networks) in the long term because the benefits provided to governments may lead to the freeing up of revenue or public resources for other purposes. Even those who have not purchased more efficient products may benefit from the lower increases in water charges that could result from deferred infrastructure investment. Water savings realised due to the WELS Scheme may also allow water not consumed for urban purposes to be used for or other non-urban purposes across the economy.
Environment	It is likely that a number of benefits are distributed to the environment through the existence of the WELS Scheme. Water savings may allow water not consumed for urban purposes to be used for environmental purposes, which could improve environmental outcomes. The Scheme's abatement of greenhouse gas emissions is also likely to be beneficial to the environment.

Source: Based on consultations with WELS Scheme stakeholders and submissions to the Review, and Deloitte 2011.

7 WELS Scheme costs

All regulatory measures impose costs on stakeholders – be it the regulator (government), those being regulated (in this case industry and businesses) or other stakeholders (such as broader society). The WELS Scheme is consistent with this; it creates and imposes costs on various stakeholder groups. These costs need to be taken into account when considering the achievements or benefits of the Scheme, and considering any potential future changes.

7.1 Types of costs

The WELS Scheme imposes financial, time or other costs on four main stakeholder groups; namely:

1) Australian governments
    a) costs to the Commonwealth Government – which includes the financial contribution made per annum and any shortfall of revenue to meet expenditure associated with the WELS Scheme
    b) costs to state and territory governments – financial costs associated with annual funding provided to the WELS Scheme as part of the intergovernmental agreement, and time costs related to the reviewing and approving changes to policy and legislation
2) Registrants – who incur a direct financial cost for annual registration fees, product testing and labelling for the product being supplied. Time costs associated with registering and renewing products, and ensuring compliance, are also incurred.
3) Product suppliers – mainly retailers and wholesalers – incur a range of indirect costs. The main component is for compliance responsibilities related to supplying products and includes ensuring all items for sale are currently registered and labelled correctly. Other costs include developing internal procedures and staff training, destroying stock if its registration expires, product registration if stock registration expires and is not renewed by the registrant, and potentially some costs passed on from registrants (such as part or all of WELS Scheme registration fees).
4) Consumers – all or part of the WELS Scheme costs are likely to be passed on to the consumer from higher up the supply chain, and may be reflected at the point of sale in higher prices for products.

While some costs listed above may be passed on from one party to another, those laid out in the following sections are presented for illustrative purposes to show where costs are imposed at certain stages along the supply chain.

7.2 Costs to Australian governments

All Australian governments incur a range of direct financial and time costs associated with the administration and operation of the WELS Scheme. These are determined in part by the target of an 80:20 cost-recovery split between industry and government, and the intergovernmental agreement on funding between the Commonwealth Government and state and territory governments.

Based on best estimate expenditure forecasts provided to the Reviewer by the Department, the WELS Scheme should come at a combined direct financial cost to all Australian governments of

approximately $208,000 for the 2014–15 financial year – $196,000 for state and territory governments and $12,000 for the Commonwealth Government.[39]

7.2.1 Commonwealth Government costs

The major direct cost incurred by the Commonwealth Government is associated with its revenue contribution to the WELS Scheme (notionally 10 per cent of Scheme's total costs), and any unrecovered portion of expenditure related to activities such as:

- assessing registration applications for new products
- assessing and renewing product registrations
- updating and maintaining the WELS Scheme Product Database
- undertaking compliance and enforcement activities
- administering WELSAG and other stakeholder engagement activities
- developing policy and standards
- payment for services from third-party suppliers – including legal costs and commissioned research.

While the Commonwealth Government pays WELS Scheme staff salaries, on-costs and other expenditures in full upfront, because the majority of these costs are recovered at some point from industry and state and territory governments, it cannot be said that the Commonwealth Government bears these costs in full. On this basis, the Commonwealth Government only bears costs associated with its agreed direct financial contribution to the WELS Scheme.

The Reviewer understands that the Commonwealth Government will contribute $196,000 towards the WELS Scheme for the 2014–15 financial year. Based on expenditure forecasts for 2014–15, it is expected that only $12,000 of this contribution will be required to cover costs, and $184,000 of the contribution will accrue to the WELS Scheme's special account as a surplus (to be spent in future years).

If there is a reduction in actual revenue or an increase in expenses over this period, the Commonwealth Government will be required to cover the shortfall (beyond the current expected surplus of $184,000). In previous financial years this shortfall has been many hundreds of thousands of dollars (in isolated cases it has been millions – see Section 3.5); however, this is not expected to eventuate in the 2014–15 financial year.

The Reviewer was unable to obtain projections of future expected contributions by the Commonwealth Government; however, it can be assumed that based on agreed cost-recovery targets, these should equal approximately 10 per cent of the forecast total expenditure of the WELS Scheme. Based on expenditure remaining at $1.44 million, and there being no shortfall from revenue

[39] Because it is likely that $184,000 of Commonwealth Government's total contribution of $196,000 will be counted as a surplus, which will accrue to the WELS Scheme's special account, it is not counted as a cost here as the funds are still available to be spent in future years.

collected from industry and other governments, the Commonwealth Government can be expected to contribute less than $150,000 per annum in future (growing with inflation).

It is likely that there are a range of other costs to the Commonwealth Government (both time and financial) not captured here that are related to general departmental administration associated with the WELS Scheme. The extent of these costs is unclear to the Reviewer and therefore no formal comment can be made about their broader impact.

Finding 10:

The financial cost to the Commonwealth Government of administering the WELS Scheme in the 2014–15 financial year is expected to be low compared to previous years (in which costs have been substantially higher).

7.2.2 State and territory government costs

For the 2014–15 financial year, state and territory governments have contributed a combined total of $196,000 to the WELS Scheme. States and territories do not contribute equal shares; the cost is split on a proportional basis relative to the population of each jurisdiction (using the National Environmental Protection Council (NEPC) formula). The Reviewer confirmed with the Department that specific contributions for 2014–15 were as follows:

- New South Wales – $63,896
- Victoria – $48,584
- Queensland – $39,247
- South Australia – $14,692
- Western Australia – $19,839
- Tasmania – $4,571
- Northern Territory – $2,015
- Australian Capital Territory – $3,156.

Financial details provided to the Reviewer by the Department indicated that in 2013–14 state and territory governments combined contributed $191,000, and the previous year contributed $185,000. The Reviewer was unable to obtain projections of expected future contributions by state and territory governments; however, it can be assumed that based on the agreed cost-recovery target, contributions should equal 10 per cent of the forecast expenditure of the WELS Scheme in future years. Based on Scheme expenditure remaining at $1.44 million across future years, state and territory governments can be expected to contribute less than $150,000 per annum (growing with inflation).

In addition to direct financial costs, state and territory governments incur minor costs associated with WELSOG duties, which includes reviewing proposed changes to the WELS Scheme and other state based legislative responsibilities. Based on consultation with state and territory governments, these costs are understood to be not large.

Finding 11:

The financial cost to state and territory governments in the 2014–15 financial year is expected to remain similar to previous years. The combined cost to these governments has not varied significantly in recent years.

7.3 Costs to WELS Scheme registrants

WELS Scheme registrants incur a number of direct and indirect costs, such as those associated with mandatory registration, testing and labelling requirements. In addition to manufacturers, some wholesalers or retailers are also registrants with the WELS Scheme, and thus incur similar costs as outlined in this section.

7.3.1 Cost of product registration and renewals

Direct cost – registration fee

WELS Scheme registrants incur a financial cost associated with the registration of products and annual renewal. In aggregate, all registrants will incur a cost of more than $1.23 million for product registrations in the 2014–15 financial year.[40] Based on the 513 individual invoices sent by the Department to date, the average individual cost will be approximately $2,400 (Tier 4). However, this average is likely skewed by a small number of large registrants (who pay between $25,000 and $121,000 per year) and therefore the median payment of $1,700 (Tier 3) may be a more indicative reflection of the annual cost of fees per registrant. Based on total fees paid for 2014–15, the average cost to industry per product registered is approximately $81.[41]

The number of units of each registered product produced per annum is unclear, and is likely to differ based on category (for example, some whitegoods models are likely to be produced in the thousands while boutique tap equipment may be made in runs of a couple of hundred). However, if it is assumed that all fee paying registered products will have manufacturing runs of over 100 units per annum,[42] the direct cost of registration fees per unit produced is unlikely to be more than $0.81 and could even be lower than $0.01 in cases of large manufacturing runs (more than 10,000 units).

In recent years, total registration fee costs to WELS Scheme registrants have varied substantially, with combined costs of only $47,000 in 2012–13 and up to $1.24 million in 2013–14. However, this variation has in large part been due to changes made to WELS Scheme administrative arrangements – in particular the movement from five year registration periods to annual registration and the associated refunds for the 2012–13 year.

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[40] $1.23 million in registration fees had been invoiced by the Department as at the end of January 2015. While it is expected that new products may be registered with the WELS Scheme throughout the remainder of the year, thus potentially increasing the combined cost to registrants, it is likely that the number of new registrations will be small and not flow through into major increases in combined financial costs.

[41] The figure of $81 is based on the combined financial cost of $1.23 million for product registrations in the 2014–15 financial year divided by the total amount of fee paying products registered with the WELS Scheme on 9 April 2015. Only 75 per cent of all products registered (or approximately 15,000 out of 20,000) are fee paying models; the rest are non-fee paying and combined across a number of single registrations with sets of minor products.

[42] If less than 100 units are produced per year it would be likely they would be included under a set of minor products and be non-fee paying.

Finding 12:

Total cost to industry of registration fees have varied over recent years, but even at their highest level, the cost per registrant, per product and per unit is likely to be low.

Time cost of registration process

In addition to registration fee financial costs, registrants also incur time costs associated with undertaking the online registration and renewal process.

Based on best estimates provided by a number of registrants consulted, it appears that under the current online registration process, the registration of a new product with the WELS Scheme takes between 10 and 15 minutes – provided all documentation required is at hand. Based on the fact that the majority of registrants have 20 or fewer products registered at any one time, it can be assumed that to undertake 20 new registrations, the time cost would likely be less than five hours.

Clearly for those registrants entering the market with hundreds of products requiring new registrations, this time cost is likely to be significantly larger.[43] However, based on consultation, the time cost appears to be proportional to the amount of products being registered; that is, there is little efficiency gained by doing multiple new registrations at one time, and therefore no one business is unfairly disadvantaged on time spent per product basis.

However, in reality it is unlikely that a manufacturer would need to register all of its products as new in any given year (unless entering the market or replacing all product lines). Based on an estimated product turnover rate of 10 per cent per annum,[44] it is assumed that most established registrants would not be newly registering the majority of their products on an annual basis; rather, they would be renewing most of their registrations.

Information provided to the Reviewer indicates that based on recent improvements to the online portal registration system, the time cost associated with renewing products is now relatively negligible in most cases. It is understood that registrants are only required to 'tick a box' to indicate that they wish to renew a given product's registration. Anecdotal evidence provided to the Reviewer suggested that the renewal of many hundreds of products takes less than 10 minutes in total.

7.3.2 Cost of product labelling

Under the WELS Scheme, product manufacturers are required to supply their products with a designated water efficiency label on the packaging or in some cases affixed to the product itself. Costs to manufacturers associated with this labelling include the design (based on stipulated guidelines) and development of a label for each product (involving some level of graphic design or third-party services), and the added cost of printing and including the label on the product or packaging (e.g. cost of sticker and affixing the sticker, or extra printing costs). While a number of stakeholders provided qualitative evidence that there was some cost to the manufacturer or registrant associated with product labelling, none were able to quantify the extent of the impact in

[43] For example, for registration of 100 new products, the time cost could be as much as 25 hours; or for registration of 1,500 new products the time could exceed 375 hours.

[44] This estimate of product turnover was provided by the Department to the Reviewer. No other information was available to the Reviewer to confirm this or provide any alternative or better estimate.

financial or other terms. Despite consultation not highlighting any quantitative evidence on the actual costs to registrants of product labelling, some insight can be gained from literature.

The WELS Scheme's 2004 Regulatory Impact Statement (RIS) assumed that the cost per unit of labelling was $0.10 for clothes washing machines and dish washing machines, and $0.20 for all other products (GWA 2004). Stakeholder consultation undertaken as part of the 2008 Cost Effectiveness Analysis of the WELS Scheme broadly corroborated these costs; however, it noted that there is likely to be some case by case variation based on product categories and number of labels produced (related to economies of scale) (ISF 2008). The Reviewer does not believe these variations to be material in relation to combined costs.

7.3.3 Cost of product testing

To register a product under the WELS Scheme, the registrant must have the product tested and provide the Regulator with a test certificate from a certified NATA testing facility. Registrants directly incur the costs of this testing. The testing required for the WELS Scheme is in addition to that required for WaterMark certification or energy efficiency testing required under the E3 Program (for certain products that are covered by more than one scheme).

Stakeholders did not provide the Reviewer with estimates of product testing costs; however, estimates have been presented in past literature. The WELS Scheme's 2004 RIS (GWA 2004) assumed that testing costs per product were $1,500 for all products, except clothes washing machines and dish washing machines – for which costs were assumed to be $0 because of the testing required under the energy efficiency schemes pre-dating the E3 Program.

The 2008 Cost Effectiveness Analysis of the WELS Scheme (ISF 2008) assessed these assumptions and argued that $1,500 per model is high; that clothes washing machines require additional testing for Scheme registration that is no longer covered under testing for energy efficiency (now the E3 Program), and that the testing requirements (and therefore cost) of different types of products differs depending on the relative complexity of the product (for example a tap versus a clothes washing machine). For the purposes of this Review, the estimates of testing costs developed in 2008 will be used (Table 7).

Table 7. Cost of testing products to meet WELS Scheme requirements

Product	Estimated cost per model (GWA 2004)	Estimated cost per model (ISF 2008)
Showers	$1,500	$500
Taps	$1,500	$500
Toilet equipment	$1,500	$800
Urinal Equipment	$1,500	$800
Clothes washing machines	$0	$3,000
Dish washing machines[1]	$0	$0

Source: GWA 2004 and ISF 2008.
Notes: 1) Both GWA 2004 and ISF 2008 assumed that the cost of testing dish washing machines was $0 because no additional testing was required to meet WELS Scheme requirements beyond that which is already required by energy labelling schemes (now the E3 Program).

7.3.4 Cost of obtaining WaterMark Licence

To register showers, toilet equipment, urinal equipment, taps and flow controllers with the WELS Scheme, registrants are required to provide a valid WaterMark Licence for the product. As noted in Section 5.1, the WaterMark Scheme is a mandatory certification scheme for plumbing and drainage materials and products to ensure that they are fit for purpose and appropriately authorised for use in plumbing installations across Australia (GWA 2014).

Obtaining a WaterMark Licence requires registrants to incur a financial cost for associated testing and a payment to a Conformity Assessment Body (CAB) to provide product certification. However, due to the mandatory nature of the WaterMark Scheme, in the absence of the WELS Scheme, registrants are still required by law to obtain a WaterMark Licence for the product or it is not allowed to be installed in Australia – and it is assumed that this would make the product essentially unsaleable. On this basis, the costs associated with obtaining a WaterMark Licence cannot be attributed to the WELS Scheme, despite the Scheme's requirement that a valid WaterMark Licence is provided for certain products.

Finding 13:

Financial or other costs associated with obtaining a WaterMark Licence cannot be attributed to the WELS Scheme, as relevant products would still require a WaterMark Licence in the absence of the WELS Scheme.

The costs of obtaining a WaterMark Licence cannot be attributed to the WELS Scheme; however, the WELS Scheme requirement that WaterMark Licences be individually uploaded for each new product registered can. For registrants entering the market with many hundreds or, in a limited amount of cases, thousands of products, this task may represent a significant time burden, but for the majority of registrants (with two or less products requiring new registration per year – see Section 7.3.1), this requirement to manually upload the licences is unlikely to result in significant time or other costs.

7.4 Costs to product suppliers (retailers and wholesalers)

In addition to registrants, suppliers of WELS Scheme products (primarily retailers and wholesalers) incur a range of both direct and indirect costs associated with the WELS Scheme.

7.4.1 Costs passed on from registrants

As presented above, product registrants incur costs imposed by the WELS Scheme – mainly through registration fees and testing. As rational profit seeking businesses, these registrants should seek to minimise costs wherever possible. In the case of the WELS Scheme, consultations suggest they generally do this by passing on most, if not all, costs imposed to wholesalers or retailers by increasing the wholesale price of the product sold.

While there are data limitations for some costs, based on approximate known costs presented in Section 7.3, it is likely that the cost passed on to product suppliers by registrants is small in most cases – under a worst case scenario, the most would be 4 per cent of retail value (Table 8). The following table presents this worst case scenario where a manufacturer only produces 100 units of a given product in a year, which is the minimum production required to pay a registration fee (see Box 2) – this scenario returns the maximum possible per unit registration fee cost. As a result, it represents the assumed maximum possible per unit cost that could be passed on to suppliers.

Table 8. Estimated per unit cost passed on from registrant to product supplier

Cost per unit ($)	Tap	Clothes washing machine
Registration fee[1]	$0.81	$0.81
Registration time cost[2]	$0.01	$0.01
Testing cost[3]	$0.50	$3.00
Labelling cost[4]	$0.20	$0.10
Approximate potential total cost passed on per unit	*$1.52*	*$3.92*
Assumed lowest retail value of product[5]	*$40*	*$400*
Percentage of passed on cost in retail value	*3.8%*	*0.98%*

Source: Aither, based on cost estimates provided in stakeholder consultation, GWA 2004 and ISF 2008.
Notes: 1) Based on average registration cost per product registered with WELS Scheme ($81) and 100 units produced per year (minimum required to pay fee – i.e. maximum possible per unit fee cost); 2) Based on a conservative estimate of time spent registering each product made in Section 7.3.1; 3) Based on estimates made by ISF 2008; 4) Based on estimates made by GWA 2004 and ISF 2008; 5) Based on estimates provided to the Reviewer in stakeholder consultation.

While it is unlikely that any manufacturers producing a $40 retail value tap or a $400 retail value clothes washing machine would produce as few as 100 units per year (products at such a low price point are likely mass produced), Table 8 illustrates that even under this worst case scenario, the potential cost passed on to suppliers is very small. If there is an assumed 10,000 units produced per annum and all other assumptions are maintained in line with Table 8, the maximum percentage of passed on cost falls to negligible levels for clothes washing machines and less than 2 per cent for tap products that are at the cheaper end of the market.

On the other hand, under a better case scenario, where 10,000 units are produced, all other assumptions remain constant, the retail value of a clothes washing machine is $1,400 and the retail value of a tap product is $140 (350 per cent increase on worst case scenario and assumed to represent a higher price point in the market), the potential cost passed on to suppliers is even smaller as per cent of retail value. Under this scenario, the maximum percentage of passed on cost falls to 0.2 per cent for clothes washing machines and less than 0.5 per cent for tap products.

Based on this testing, any difference in the cost passed on to suppliers by registrants is likely to primarily reflect the number of units produced per annum (more leads to lower per unit registration cost), and potentially the respective efficiency of the registrant in minimising other costs borne in the registration process (such as more productive and efficient staff, lower cost labelling or more sophisticated procedural systems). It is to be expected that larger manufacturers can minimise these costs more than smaller manufacturers that in some circumstances may be disadvantaged in their ability to competitively pass on the costs of the WELS Scheme – especially where small numbers of units are produced per annum. However, on balance, the average difference in passed on costs between two similar products (e.g. taps) is likely a matter of cents and would unlikely lead to one product being more or less competitive when invoice rounding and wholesale discounting is taken into account.

Finding 14:

Most if not all WELS Scheme costs incurred by registrants are passed on to product suppliers, but in most cases such costs are a minor component of the product's retail value.

7.4.2 Time cost of checking registration currency

Retailers and wholesalers have a number of legal obligations under the WELS Scheme – including ensuring that products they supply are registered and display the correct label. It is illegal for suppliers to sell products that are not registered. Many retailers and almost all wholesalers hold hundreds if not thousands of individual WELS products in stock at any given time. Due to the WELS Scheme's annual registration cycle, suppliers generally need to audit or stocktake their product range annually to check which may or may not be registered in the coming year.

This checking process requires suppliers to liaise with a potentially large number of registrants (manufacturers) between September and December to assess what products are ceasing registration, and to consult the WELS Scheme Product Database before, on and after 22 January of the following year to confirm whether registrations have been renewed or are ceasing. Due to the business by business nature of this cost, and ability of individual product suppliers to streamline WELS Scheme stocktakes with other general business stocktakes, the Review was unable to quantitatively establish the cost that this requirement imposes on the average supplier.

Anecdotal evidence was provided by one retail stakeholder that it took in excess of 100 hours annually to comply with these WELS Scheme requirements. Another stakeholder estimated that it would take a competent person between 6 and 8 minutes to check the registration currency of each product held in stock – which could total days depending on how many products are held in stock. However, no further evidence was provided to validate the above estimates.

Despite anecdotal evidence provided by stakeholders as to the high costs associated with this checking process, the Department contends that recent improvements made to the WELS Scheme Product Database make this process quick with negligible cost to the supplier. Stakeholders can now upload a database file (CSV) of all products held in stock to the online portal and automatically check all registration details. However, the Department did acknowledge that the supplier would need to have a level of sophistication in their stock tracking processes, which some small businesses may not have.

Finding 15:

The cost to product suppliers of checking registration currency is likely to be generally low, based on recent changes to the WELS Scheme Product Database. However, for retail or wholesale businesses without effective stock tracking systems, this might not be the case and large costs may be incurred as a result of manual checking.

7.4.3 Costs of additional in-store or online labelling

At the point of sale (in-store or online), and in advertising and promotional material, product suppliers are required to provide a product's WELS Scheme rating using either the prescribed label or in text. For example, suppliers may choose to provide the WELS Scheme rating on a shelf price tag to remain compliant and avoid affixing a label to the individual product.

The requirement to provide additional labelling (to that provided by the manufacturer) imposes costs on the supplier – including potentially changing the in-store labelling system (e.g. shelf label) to include this information, the cost of additional labelling (e.g. printing) or time taken to audit accuracy of labels. For large retailers, the major systematic costs associated with these changes (e.g. online

website layouts and shelf labelling systems) are assumed to have been incurred and the additional ongoing cost is likely small. However, for smaller retailers without the capital or ability to develop new labelling systems that are complaint, more burdensome costs could be incurred.

One stakeholder estimated that an individual retailer had recently invested $25,000 in updating its IT system in order to produce display and price tags that contained the required water efficiency information – although it is possible that this investment would have benefited the retailer in other ways. However, beyond this anecdotal evidence, no robust or generally applicable estimate was provided to the Reviewer that quantified the cost to product suppliers of additional point of sale labelling.

7.4.4 Costs of stock destruction due to expired product registration

As noted previously, it is illegal to sell a WELS Scheme product that is not currently registered with the Regulator. Anecdotal evidence was provided to the Reviewer by a number of stakeholders that product suppliers have, at least in the past, chosen to destroy otherwise saleable stock because its registration had expired and it was not cost-effective to newly register (under its own name not the manufacturer's) the small amount of stock for a once off sale.

One larger retailer reported stock losses of up to $100,000 annually where registrations had expired and saleable stock was still held. While such large losses are likely to only be reflective of the larger retailers in the market (and in some cases they reported being able to obtain refunds from manufacturers before destroying stock), a number of smaller retailers qualitatively reported smaller losses and claimed that no manufacturer refunds were provided.

As noted in Section 2.3.4, a grace period was recently introduced, whereby products that are no longer registered with the WELS Scheme can be sold for a further six-months after January of the year that the registration expires. Some stakeholders indicated that the grace period has helped minimise stock loss costs but also argued that it did not sufficiently alleviate the problem. Consultations (especially with smaller retailers) consistently suggested that the time from the point of order to the point of stock being on the showroom floor could be well over 12-months (especially when dealing with international manufacturers), which means the six-month grace period is ineffective. Furthermore, most suppliers buy stock to sell over multiple years (due to the cost-effectiveness and economies of scale in the purchase) and therefore, even with the grace period, the available time to sell stock (if the manufacturer fails to renew the registration) introduces purchasing risks for the supplier.

Finding 16:

Expired product registrations on held stock are creating costs to product suppliers where they must destroy stock or return it to manufacturers.

7.4.5 Cost of additional internal procedures and staff training

A number of retailers consulted reported that due to the complexity of the WELS Scheme and repercussions of non-compliance at the retail level (i.e. the potential for prosecution), they have made significant additional investment in staff training – both back office and shop floor. While it cannot be independently verified, one large plumbing product retailer estimated that it has invested more than $60,000 over the past five years in implementing training and auditing procedures related

to the Scheme. Beyond this, no estimates of costs associated with development of additional internal procedures and staff training were provided to the Reviewer.

Based on the limited evidence, no formal comment can be made on the extent of costs to suppliers related to internal procedures and staff training to meet WELS Scheme requirements.

7.4.6 Cost of meeting compliance and enforcement requirements

The Regulator has a compliance role which includes market surveillance and, where required, enforcement intervention or action. These interventions may range from educative advice or assistance to enforceable undertakings or prosecution. So, while all industry participants have certain costs to remain compliant with the WELS Scheme, those assessed to be in breach of the regulations (non-compliant) may have additional costs imposed on them.

One retailer who has been subject to an enforceable undertaking estimated that the costs of labour associated with the requirement to complete an internal audit of one store was approximately $18,300 – including administration to write follow-up procedures, create and implement a training program and compile a master list of designated WELS Scheme products held in stock. Beyond this cost estimate, no other estimates were provided to the Reviewer.

Provided costs are proportional to the nature and severity of the non-compliance, those imposed on entities of taking remedial action should not be considered as an additional charge or an inappropriate impost. (It is arguable that these are the equivalent of the reasonable costs that would have been incurred by the supplier in being compliant in the first place.) Moreover, it is likely that the alternative to agreeing to take remedial action would be court proceedings, involving more substantial costs – legal fees, possible fines or other sanctions – in addition to the costs of remedying the underlying causes of the non-compliance.

In the circumstances, the costs imposed by enforcement requirements are not considered inappropriate or specifically attributable to the WELS Scheme.

7.5 Costs to consumers

While costs are initially borne by governments, WELS Scheme registrants and product suppliers, some or all of these costs are generally either passed along the supply chain (or reflected in government budgets that require revenue raising measures), meaning that consumers (and taxpayers) ultimately incur most, if not all, costs of the Scheme. This cost to the consumer is generally thought to be reflected in a higher final purchase price for the product than would be the case without the existence of the WELS Scheme.

The extent of costs passed on is likely unique to each product sold, based on the number of units manufactured, the cost efficiency of the manufacturer and supplier sophistication. However, the passed on cost is unlikely to differ significantly between like products (see Section 7.4.1). While the exact dollar figure that this cost represents is unknown, based on estimates made in this section and in Table 7, it is unlikely that it is high relative to the retail price of the product for individual purchases.

While in most cases some if not all costs are ultimately passed on to consumers, in some circumstances manufacturers or retailers may be forced to absorb (i.e. not pass on) some of the costs in order to meet certain price points in the market. A number of industry stakeholders pointed out

that there are a number of established price points in the market and that many manufacturers and retailers need to meet these in order to remain competitive. In cases where to meet a specific price point the manufacturer or retailer is not able to pass on the full costs of the WELS Scheme, consumers may not be the ultimate bearers of the costs, and the profitability of manufacturers or retailers may suffer (albeit marginally) as a result.

In addition, the Australian public bear the costs of all contributions towards the WELS Scheme made by governments (and other costs involved) through various taxation streams and general consolidated revenues. This applies to both those who are consumers of WELS Scheme products and those that are not bearing these costs – there is no cost discrimination between the two groups. However, due to the relatively small overall dollar value contribution by governments (less than $400,000), when spread across Australia's tax base, the impact at the individual level is extremely low.

Finding 17:

It is likely that most of the costs imposed by the WELS Scheme are ultimately passed on to consumers in the price paid for products or borne by society more broadly.

7.6 Summary

Direct and indirect costs of the WELS Scheme are incurred by all stakeholders at various points along the supply chain and through different avenues of revenue generation. These costs flow between government, industry, consumer and society stakeholder groups as follows:

- Aggregate government costs for the 2014–15 financial year are estimated at $208,000 (with a surplus of $184,000 in unspent contributions – i.e. not counted as costs in this year).
- The cost of contributions made by the Commonwealth Government has varied since the establishment of the WELS Scheme, while state and territory government funding contributions have remained relatively consistent.
- Costs to WELS Scheme registrants exist, with the most easily quantifiable cost (registration fees and testing) appearing the most significant.
- Product suppliers (mainly wholesalers and retailers) incur multiple direct and indirect costs; however, only anecdotal evidence indicates their extent.
- Consumers are likely to ultimately bear much of the cost of the WELS Scheme through higher prices paid for products. However, the extent of increases in price are likely to be very to extremely low as a proportion of product prices.

In summary, all WELS Scheme stakeholders incur additional costs imposed by the administration of, and compliance with, the Scheme, that they would not otherwise have to meet. With consideration of the benefits discussed in Section 6, an assessment of the appropriateness, effectiveness and efficiency of these costs in achieving the Scheme objectives is presented in the following section.

Part C. Assessment

8 Assessment of appropriateness, effectiveness and efficiency

This section presents an assessment of the WELS Scheme, broadly based on the Review's Terms of Reference (see Appendix A) – including its appropriateness, effectiveness and efficiency. Where possible, the assessment draws on information or evidence presented in the preceding sections of this report. However, where gaps exist or the quantitative data is unreliable, the assessment is more qualitative in nature, using information provided through consultation and from a desktop literature review.

8.1 Appropriateness

The Terms of Reference for the Review require that an assessment be made as to whether or not the objectives, and overall design, of the WELS Scheme continue to be appropriate. This subsection covers an assessment of the appropriateness of the WELS Scheme's:

- objectives (Section 8.1.1)
- design, given its objectives (Section 8.1.2)
- administration (Section 8.1.3)
- financial costs and cost-recovery arrangements (Section 8.1.4)
- regulatory burden imposed (Section 8.1.5)
- product coverage, performance and standards (Section 8.1.6).

8.1.1 WELS Scheme objectives

While a number of aspects of the WELS Scheme's operation have undergone substantial change over recent years, the core objectives and design of the scheme have remained comparatively unchanged since its establishment in 2005. The Reviewer is confident that the WELS Scheme's objectives of reducing water consumption, providing information about water efficiency to consumers and promoting the adoption of more water efficient technologies remain as relevant today as when it was established in 2005. Almost all stakeholders consulted support the objectives of the Scheme, regardless of whether they supported its administration and operational arrangements.

While most metropolitan and urban centres in Australia are not currently facing immediate water security issues,[45] the need for effective water demand management solutions, such as the WELS Scheme, will be an ever present necessity based on Australia's highly variable and extreme climate.

[45] With the notable exception of southern and central South Australia, western Victoria, and far north and central Queensland (BOM 2015a) and the recent notification (May 2015) by the Bureau of Meteorology that eastern Australia is now once again being affected by an El Niño event (BOM 2015b).

Water scarcity is a fact of life in Australia and future climatic variability will more than likely further underscore the importance of these objectives in the future.

Despite market research suggesting that the general public's perception of the importance of the WELS Scheme's objectives has recently reduced,[46] and despite an observed reduction in the using scheme as an eligibility requirement for rebate programs and related schemes across Australia, the long-term relevance of the Scheme is not in question at the time of this Review and its short-term criticality is only as distant as the next major drought.

Ever present cost of living pressures mean that consumers across Australia remain concerned about the price of utility bills. Improving the water efficiency of products used in properties (i.e. reducing water consumption) is one way that consumers can reduce water and associated electricity and gas bills. The objectives of the WELS Scheme enables this by promoting products that reduce consumers' water consumption regardless of behaviour (see Finding 1), or indirectly through reducing overall water delivery or sewage treatment costs and deferring infrastructure augmentations and other supply side measures (see Finding 3).

The WELS Scheme and its objectives have been, and will continue to be, an important part of demand management measures to reduce per capita water consumption and make Australia's use of natural resources more efficient. Evidence provided to the Reviewer suggests that there is a shared view across the majority of stakeholders that the Scheme's objectives represent good and appropriate public policy direction, and it is important that these objectives are retained in our national agenda.

Finding 18:

The objectives of the WELS Scheme (and thus the objects of the WELS Act 2005) remain appropriate in 2015 and into the future.

8.1.2 WELS Scheme design

In broad terms, the design of the WELS Scheme can be described as a national mandatory consumer information advisory scheme that is enforced at the point of sale and is administered at a national level by the Commonwealth Government.

Consumer information advisory scheme

Given the WELS Scheme's objective to provide to consumers consistent and accurate information about product water efficiency, a consumer-based information scheme that requires all relevant products to display at point of sale a recognisable and standardised specific water efficiency label is an appropriate design. Point of sale display of information (i.e. mandatory water efficiency labelling) is an appropriate way of promoting the adoption of more water efficient technologies. Market research presented in this report (Section 6.2.3) suggests that most consumers rely on this information to some extent when making purchase decisions. For product categories where water efficiency is an important consideration in choosing the product, it is likely that information provided

[46] Those surveyed who indicated that they were 'very conscious about water saving' dropped from 71 per cent in 2011 to 65 per cent in 2014 (Quantum 2014).

at point of sale contributes towards the adoption of more water efficient technologies by consumers over time.

National administration

Administration of the WELS Scheme at a national level is appropriate as it ensures consistency in application of policy and regulation across all Australian jurisdictions. The model currently adopted allows each state or territory to relatively easily enact the Scheme through passing complementary jurisdiction-based legislation, and allows lower levels of government and other entities to apply core characteristics of the Scheme (e.g. star rating framework) to local policies and programs where relevant. This national approach lowers overall administration and regulatory burden costs compared to a model where separate water efficiency schemes are administered independently in each jurisdiction.[47]

In addition, administration of the WELS Scheme at a national level maintains consistency for consumers, which improves its rate of use and reduces engagement costs for all parties. If multiple water efficiency schemes existed across jurisdictions, it would be harder for consumers to engage with individual schemes than one single national scheme (i.e. the current WELS Scheme). For example, in a situation with multiple jurisdictional schemes, if a consumer located in New South Wales wanted to purchase a tap from an online store located in Victoria, they would have to understand the Victorian scheme. This process of understanding has an inherent cost for the consumer where one scheme may differ from another.

Similarly, for stakeholders (such as manufacturers, or suppliers with retail outlets across states and territories, and online stores distributing to multiple locations), navigating the complexities of multiple water efficiency schemes across Australia would undoubtedly increase regulatory burden and combined costs. Products currently registered with the WELS Scheme are manufactured for a national market, and it would be costly to produce different products for different requirements in each state.

The existence of a national scheme to cover products made for a national market makes sense as it decreases barriers to entry for many types of businesses and makes the application of national consumer law easier.

Mandatory nature

Evidence presented to the Reviewer suggests that the mandatory nature of the WELS Scheme and enforcement at the point of sale is an appropriate way to facilitate whole of sector compliance and ultimately improve outcomes for both consumers and business. In theory, mandatory enforcement creates a level playing field and no one business or industry sector is necessarily disadvantaged in comparison to others. The mandatory nature also creates consumer expectation at point of sale (Quantum 2014), and this provides an incentive for compliance.

[47] Even under a scenario with mutual recognition arrangements in place between state and territory governments (i.e. a product that is registered in New South Wales legally allowed to be sold in Victoria without the need to meet any further Victorian requirements), it is probable that multiple jurisdiction-based administrative arrangements (i.e. multiple schemes) would be substantially more costly than a single national administration.

It can also be argued that the mandatory nature of the WELS Scheme encourages competition in the marketplace because manufacturers can benefit from differentiating their products above a regulated minimum standard or on the spectrum of star ratings (see Finding 8). That is, in certain circumstances there is an incentive for a manufacturer to develop and market a 5 or 6 WELS star product rather than a 2 or 3 WELS star product. This competition likely drives product innovation, and incentivises at least some manufacturers to deliver more water-efficient products to market.

If the WELS Scheme were voluntary (not mandatory), it is probable that only those manufacturers producing highly water efficient products would participate.[48] This outcome could leave consumers unaware of the performance ratings of products that did not opt into the voluntary scheme (potentially the majority of products on the market). If this eventuated, it would effectively reverse gains made by the Scheme in resolving the knowledge asymmetry between consumers and those that make and sell water-using products; ultimately reducing consumers' ability to make more informed decisions. It can be reasonably expected that such an outcome would substantially undermine the impact and benefits associated with the current Scheme. Therefore, it is entirely appropriate that the WELS Scheme remains mandatory.

Commonwealth Government administration

Market research presented in Section 6.2.4 suggests that government oversight and administration of the WELS Scheme provides consumers with the ability to make informed decisions in a transparent and trusted marketplace (i.e. the ability to accurately compare all products available with little technical expertise needed).[49] If the WELS Scheme was administered by industry or some other non-government entity, regardless of whether it was mandatory or voluntary, it is unlikely that such a high percentage of consumers would trust and ultimately use the information currently provided by the Scheme at point of sale.

Finding 19:

The broad design of the WELS Scheme remains appropriate.

8.1.3 WELS Scheme administration

Appropriate administrator

Based on findings made in Section 6.2.2, national level (or Commonwealth Government) administration of the WELS Scheme is considered as appropriate in that it makes efficient use of Australia's federal system of government and reduces unnecessary duplication across different levels of government. This national level administration enables consistent implementation and enforcement, at least overall cost, of the Scheme across all Australian state and territories.

Taking national level administration as a given, based on the WELS Scheme's environmental objectives and the location of corporate knowledge held across the Commonwealth Government, it

[48] As was the lesson taken from the pre-WELS Scheme voluntary water-efficiency labelling scheme arrangements administered by WSAA (see Section 2.3.3 for more details).

[49] As noted previously, 83 per cent of consumers indicated that they viewed the WELS Scheme as 'very' or 'quite' credible, and that because it is a government regulated initiative they have confidence in the information provided (Quantum 2014).

remains appropriate that the Department of the Environment be the administrator of the Scheme (at least in the short-term).

Finding 20:

National administration of the WELS Scheme is appropriate and, to facilitate this, the Commonwealth Government is the appropriate administrator.

Improvements in administration

Noted recent improvements that have been made to administration of the WELS Scheme – such as reductions in administration costs, greater cross-skilling of team members, IT system improvement, a simplified registration system, more flexible labelling requirements, greater skilled support for industry and more proportionate enforcement actions (see Section 4) – have been highly praised by stakeholders. These improvements have increased the general appropriateness of the WELS Scheme's administration in comparison to previous arrangements – including those assessed at the time of the 2010 Review.

However, the current administration of the WELS Scheme still imposes costs and regulatory burden on stakeholders (see the findings of Section 7). To be appropriate, the extent of these costs and burden needs to be as small as possible while ensuring benefits are delivered and acceptable levels of risk are maintained. While the Scheme's high-level administration appears to be appropriate, in the context of this Review and the Terms of Reference, it is important to identify opportunities to remove any unnecessary cost and regulatory burden where it exists. Based on this, a number of improvements that would make administration more appropriate are identified and discussed in the following sections of this report.

8.1.4 WELS Scheme financial costs and cost-recovery arrangements

To establish whether or not the costs (and their distribution) reflect the distribution of benefits, an assessment of the appropriateness of WELS Scheme financial costs, registration fees, and cost-recovery arrangements is required.

Total financial costs

Section 7 noted that total direct financial cost of the WELS Scheme (measured by annual expenditure) is approximately $1.44 million per annum in 2014–15. Based on conversations with the Department, it is expected that total expenditure will remain at this level in future years, despite the WELS Scheme having an approved budget of over $500,000 more than this per annum.

Given the national reach of the WELS Scheme's administrative activities and the large benefits derived (see Section 6) the direct financial cost of $1.44 million appears relatively small (the specific efficiency of this is assessed further in Section 8.3). On this basis, the direct financial cost of the Scheme appears to be appropriate. However, this is not to say that further costs could not be reduced without compromising the benefits that the Scheme is delivering.

Finding 21:

The total direct financial cost of the WELS Scheme appears to be appropriate given its national coverage and benefits derived; however, this is not to say that its costs could not be reduced further.

Appropriateness of registration fees

The majority of the WELS Scheme's direct costs – estimated at 86 per cent or $1.23 million in the 2014–15 financial year – are initially borne by product registrants though the payment of registration fees (see Section 3.5). It has been established that this comes at an average cost per registrant of between $1,700 and $2,400 per annum, or about $81 per product.

On the whole, consultations suggested that the cost of current registration fees on registrants was not prohibitively high, and most manufacturers could relatively easily pass on some or all of these costs in the price of the product to suppliers. Whitegoods manufacturers were generally less concerned than plumbing product manufacturers with the impact of registration fees on items sold. This is primarily due to the price that whitegoods command in the marketplace (worth many hundreds if not thousands of dollars) compared to plumbing products (which can be as low as a couple of dollars per unit) (see Section 7.4.1 and Table 8). It was established that even under a worst case scenario, the potential cost passed on to suppliers is small as per cent of retail value, and could be smaller than estimated or outweighed by invoice rounding and wholesale discounting (see Finding 14).

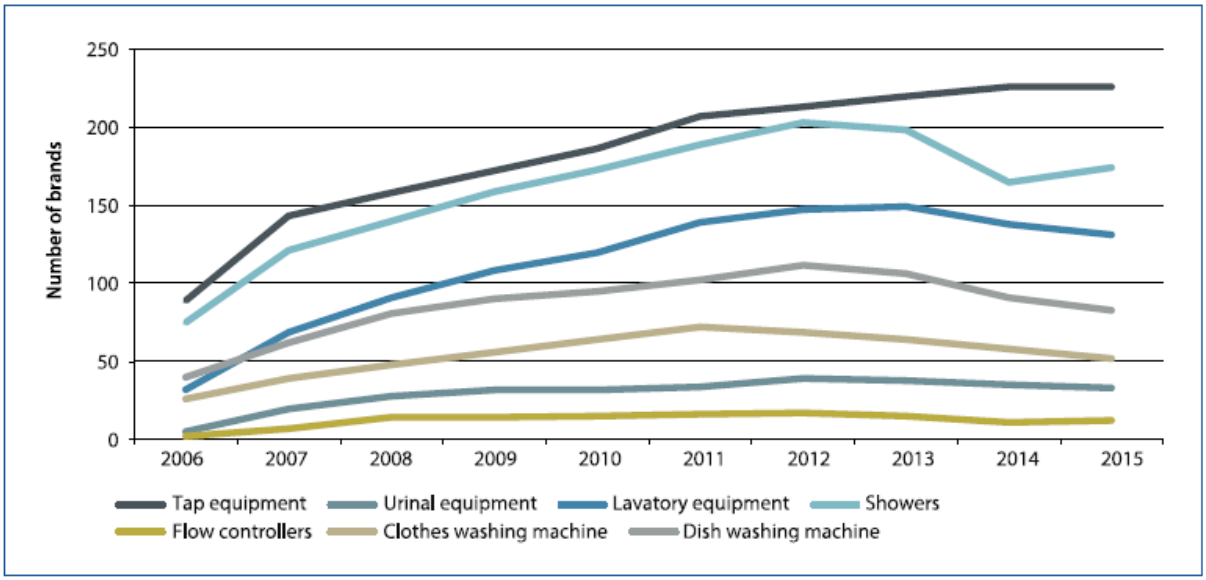
Despite most industry stakeholders agreeing that the direct financial costs of the WELS Scheme are not overly burdensome, some plumbing product manufacturers argued that the change to annual registration and increase in fees (commencing in 2013) led to a reduced number of products brought to market. One stakeholder went as far as to claim that the increased fees have impacted on the competitiveness of Australian manufacturing, forcing the closure of Accent International Tapware in 2012. In a letter to clients (provided to the Reviewer by Gro Agencies Pty Ltd), Accent International Tapware stated:

Government over-regulation has created business conditions that mean manufacturing [of tapware products] in Australia is no longer viable…The new WELS regulations and fee structure are an unacceptable burden for a business of our size…We have chosen this time to retire from the tapware industry (Accent International Tapware 2012).

In consultation, the Department disputed this suggestion. The Reviewer is unable to independently verify a causal link between registration fee increases and the closure of Accent International Tapware. While it must be acknowledged that any increase in overheads are an impost on manufacturers and suppliers, registration fees are levelled equally on all regulated products, regardless of origin, and should not necessarily put local manufacturing at a relative disadvantage to imported products.

Despite the Department disputing the suggestion made by Accent International Tapware, analysis undertaken by the Reviewer suggests that since the 2013 increase to registration fees and change to an annual cycle, the number of brands represented in most product categories has decreased (Figure 12) – with the exception of taps, which reportedly were not properly accounted for in the WELS Scheme Product Database prior to this time. Despite a large decrease in the number of shower brands registered between 2013 and 2014, between 2014 and 2015 this number has increased and the reason for this rebound is unclear.

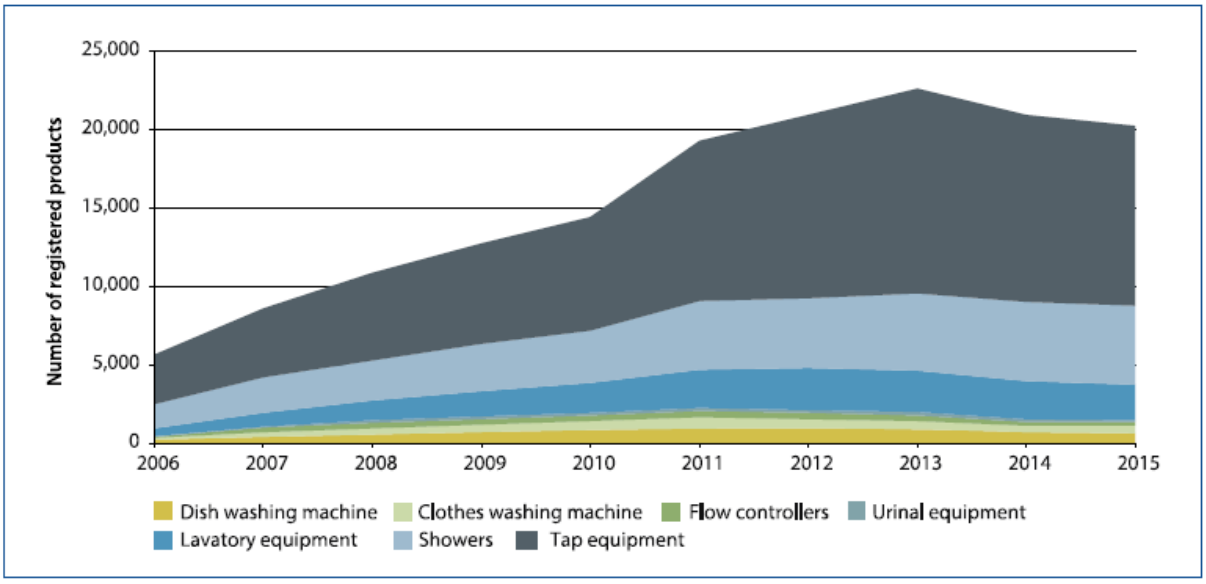
Figure 12. Number of brands represented in WELS Scheme product categories – 2006 to 2015



Source: Aither, based on Australian Government 2015d and ISF 2014.
Note: Data for 2015 was downloaded from WELS Scheme Product Register on Thursday 9 April 2015.

Similarly, the total number of products registered with the WELS Scheme has decreased since 2013; however, the number of flow controllers and urinal equipment products registered has increased (Figure 13). Despite decreases in both number of brands and the total number of registered products, the Reviewer was unable to establish causality (beyond anecdotal evidence) between these decreases and the increases in fees or change to any annual registrations.

Figure 13. Total number of products registered with WELS Scheme over time



Source: Aither, based on Australian Government 2015d and ISF 2014.
Note: Data for 2015 was downloaded from WELS Scheme Product Register on Thursday 9 April 2015.

It is also possible that there has been a general maturation in the number of products in the market and consolidation of brands over time (e.g. mergers or takeovers with the rise of large home

improvement and hardware chain stores), which could have led in part to the changes illustrated in Figure 12. Furthermore, the Department contends that the increase in fees made industry consider more carefully the products they were registering (in some cases products may have been registered that didn't necessarily need to be), and that the observed reductions are a result of streamlining of product lines rather than forcing entities and products out of the market.

Finding 22:

Current registration fees are unlikely to be restricting access to market and are broadly appropriate based on this and other factors.

Appropriateness of other costs

The Reviewer found that the cost to registrants of product labelling requirements is relatively small and can easily be passed on through the supply chain with minor impacts on price. Furthermore, stakeholders raised no concerns that the cost and requirement of testing under the WELS Scheme was an issue that adversely impacted on their ability to bring products to market.

Justification for current cost-recovery arrangements

The lines of evidence presented above suggest that the current financial costs to WELS Scheme registrants are unlikely to be so burdensome as to restrict access to market. However, based on the fact that registrants arguably do not realise a large share of the benefits from the Scheme (see Section 6.4 and Table 6), questions should be asked as to whether the total share of costs borne by industry is too high.

Based on cost-recovery best practice (Australian Government 2014b), those groups or individuals that benefit should ultimately bear the costs of the WELS Scheme (where efficient to do so and where beneficiaries are identifiable). Under current arrangements, the majority of the direct and indirect costs of the Scheme are initially borne by product registrants and suppliers. It is arguable that both of these stakeholder groups obtain marginal or in some cases no direct benefit from mandatory participation in the Scheme (see Section 6.4). All Australian governments also bear upfront costs, such as legislated financial contributions to the Scheme – although these are relatively small in comparison to the aggregate costs incurred by industry, and the benefits that governments and society receive.

As both Australian society and, to an extent, industry benefits from the WELS Scheme, there are both public and private goods delivered, and thus some level of cost-recovery from industry is appropriate (Deloitte 2011).

Finding 23:

It is appropriate that a portion of WELS Scheme costs are recovered from industry, given there are both public and private benefits delivered.

Taking partial cost-recovery as a given, consideration needs to be given to the design of the current cost-recovery arrangements and fee structure and whether it is the most appropriate (i.e. are more equitable and appropriate arrangements and structures available to achieve scheme objectives?).

A review of the Commonwealth Department of Finance's detailed guidance on agreed cost-recovery principles and models for government schemes, programs and services – *the Australian Government*

Cost Recovery Guidelines (Australian Government 2014b) – indicates that improvements could be made to current cost-recovery arrangements under the WELS Scheme, including to:

- better reflect the cost of services provided by the Department in the registration fees
- increase the reporting transparency of the Scheme's cost-recovery arrangements
- better align the cost-recovery split with the distribution of benefits amongst stakeholders.

Consumers do not currently bear upfront costs of the WELS Scheme. However, it is unlikely to be feasible or efficient for consumers to bear a share of these costs, so the current approach whereby industry passes on the costs imposed is likely to be broadly appropriate. In the context of the Scheme, it is likely to be more efficient to recover costs from the beginning of the supply chain (registrants) and allow the costs to be passed through and ultimately borne by the consumer at point of sale. As all industry participants are subject to the same requirements under this approach, no particular participant should be disproportionately disadvantaged.

Broadly speaking, the Commonwealth Government can recover costs through either charging fees or imposing tax-based levies (or both); however, it is only appropriate to recover certain costs through the use of either instrument (Australian Government 2014b). Under the current cost-recovery arrangements for the WELS Scheme, costs are recovered through an annual upfront registration fee, charged to registrants based on the number of products registered. While called a fee in general discourse, the revenue generated from industry is technically recovered through a cost-recovery tax as outlined in the WELS Act 2013.

Based on Australian Government cost-recovery guidelines, those paying fees or levies should know the basis for any charges and how the generated revenue is being spent. While the WELS Scheme cost-recovery impact statements broadly outline what the recovered revenue is being spent on (registration of products; compliance monitoring and enforcement; communications; setting Australian Standards; and policy advice (Australian Government 2014b)), there is limited external transparency regarding the basis of these costs. For example, the Department was unable to provide the Reviewer with an estimate of how much it costs it to register (including processing the application) one product with the Scheme.

To improve transparency in this area, it may be more appropriate if costs were recovered in a two part fee-levy model with each collected separately – the fee component reflecting the direct cost to government of assessing a registration, and the levy component designed to cover ongoing costs associated with WELS Scheme administration. While the introduction of a two part cost-recovery model may be more appropriate in that it increases transparency, in practice it may not be feasible due to the increased costs of collecting revenue through such mechanisms. On this basis there may be efficiencies in collecting revenue once in a single fee, such as is currently the case.

Finding 24:

The collection of a single registration fee is likely to be the most appropriate way to recover costs under the WELS Scheme.

While it appears that the collection of a single registration fee from registrants is likely to be the most appropriate mechanism by which to recover costs from industry, what hasn't been established is what share of the financial costs of the WELS Scheme registrants should initially bear.

Following the joint government response to the 2010 Review's recommendations on cost-recovery, the former Department of Sustainability, Environment, Water, Population and Communities engaged Deloitte Access Economics to assess potential cost-recovery options for the WELS Scheme. Deloitte's report assessed five potential cost-recovery splits that could be employed, including – the current 80 per cent private: 20 per cent public; 50:50; 40:60; 30:70, and 20:80.

The assessment concluded that while it is impossible to determine the exact public–private contribution split that should be implemented (determining the precise distributions of benefits is very difficult), a midpoint of 60 per cent private: 40 per cent public contribution is an appropriate target (with a range of between 50:50 and 70:30).The Reviewer broadly agrees with Deloitte Access Economics' findings.

The main beneficiaries of the WELS Scheme are consumers and society more generally – including indirectly where society avoids costs associated with infrastructure, which should result in less upward pressure on utility bills for all consumers. However, as a percentage of overall costs, governments pay only a small amount of upfront costs and consumers pay none. On the other hand, industry arguably benefits little from the WELS Scheme's existence, but at least initially bears the vast majority of costs (refer to Section 6.4). At a principles level, the current 80:20 cost-recovery split between industry and government appears inappropriate and inequitable.

Based on their views about distribution of benefits and other factors, industry stakeholders consulted as part of this Review generally preferred a 50 per cent private: 50 per cent public cost-recovery split. Based on the estimated distribution of benefits (Section 6.4) and current imposition of costs (Section 7), a 50:50 split appears to be a more equitable cost-recovery target.

Finding 25:

The current 80 per cent private (industry): 20 per cent public (government) cost-recovery split is not equitable or appropriate given the nature and distribution of benefits provided by the WELS Scheme.

However, a major concern raised by government stakeholders of moving away from an 80:20 split is that to meet current expenditure the dollar value contribution from all Australian governments would need to rise. Based on the current expenditure of the WELS Scheme, to meet 50 per cent of its costs, combined Australian government contributions would need to almost double from current amounts. Consultation suggests this outcome is unlikely to be palatable at the national or jurisdiction level given current fiscal conditions.

Appropriateness of state and territory contributions

Despite an unwillingness from governments to increase the dollar value of contributions, some industry stakeholders contended that the current costs incurred by the states and territories were inappropriately low given the potentially significant benefits they received (see Section 6.2.2 and 6.4).

It is known that financial contributions to the WELS Scheme by states and territories do not exceed $65,000 per jurisdiction per annum, with some contributions totalling less than $4,000 per annum. Consultation with state and territory governments indicated that the costs incurred are relatively minor and do not represent a burden in the context of benefits provided to jurisdictions – such as avoided costs from reduced regulatory duplication.

Despite jurisdictional unwillingness, based on the nature and extent of benefits realised at that level, it seems appropriate that state and territory governments should increase their current contributions. On this basis, the Reviewer believes that it may be necessary that state and territory governments increase the level of their contributions if an alternative cost-recovery split was introduced.

Finding 26:

It would be appropriate for state and territory governments to increase the financial contributions they make to the WELS Scheme based on the benefits they receive.

8.1.5 Regulatory burden imposed by the WELS Scheme

While the direct financial costs of the WELS Scheme to industry appear broadly appropriate, a number of stakeholders reported that the Scheme imposes regulatory burdens on industry that are not necessarily captured in direct cost calculations.

Regulatory burden on WELS Scheme suppliers (wholesalers and retailers)
Administrative burden

Retailers and wholesalers (primarily plumbing retailers) reported a higher level of regulatory burden than other stakeholders. They suggested the costs associated with administration, training, auditing and (to a lesser degree) point of sale labelling or advertising requirements to ensure compliance were inappropriate when considering the objectives of the WELS Scheme and risks to the public that are presented by non-compliance. Anecdotal evidence presented to the Reviewer emphasised that small businesses were the most impacted, being less able than larger wholesalers or retailers to make the investments necessary to cover these administrative tasks or absorb costs that can't be passed on in the supply chain.

There was a clear view among affected stakeholders (notably plumbing retailers) that the costs to product suppliers of checking registration currency of stock on an annual basis was beyond that required under normal good business practice; and impacted on small business disproportionately. Stakeholders indicated that the level of cost of these administrative requirements do not appear to be visible to the Department.

However, recent improvements made to the WELS Scheme Product Database appear to make the cost to most retailers of checking the currency of stock registration negligible. This improvement and associated reduction in costs have been acknowledged by many industry participants.

Nevertheless, the Reviewer accepts that for some businesses the costs of the requirement to check the currency of registration on an annual basis remains a material burden, large in both the context of time spent and stresses imposed (see Finding 15). However, all businesses should also take

responsibility for meeting the most basic of business costs, such as an efficient way to track stock that would be required regardless of WELS Scheme requirements.

Compliance and enforcement burden

A small number of product suppliers claimed that the demands and pressure of meeting WELS Scheme requirements were an added cause of stress as a small business. One of the major drivers of this stress appeared to be the potential penalties for non-compliance (such as criminal prosecution).

On the other hand, the Department argued that there were a number of outspoken suppliers in the market (some of which have had compliance actions taken against them) whose viewpoint was not necessarily representative. It also contended that only in the most extreme circumstances would enforcement of regulations escalate to criminal prosecution and that it is preferable for all parties that matters of non-compliance be solved in the most cooperative and educative ways possible.

Burden of potential time period to sell stock

Exacerbating the regulatory burden on product suppliers are the costs presented where suppliers are forced to return or destroy stock for which registration has expired (and six month grace period is exceeded) (see Section 7.4.4). In such instances it is a poor public policy outcome given the fact that in the majority of cases the product is otherwise entirely safe and suitable, and if sold could further the WELS Scheme objectives.

While the Reviewer accepted that individual businesses must bear a certain amount of risk associated with purchasing decisions, as part of normal business operations, it is not necessarily appropriate for governments to impose regulations that materially increase these risks if no corresponding benefit is derived. In the case of the WELS Scheme, the fact that suppliers potentially have only an 18 month window to sell a product (one year registration plus six month grace period), when it can take over 12 months to receive a product from a manufacturer, increases risks for individual businesses in purchasing decisions. To the best of the Reviewer's knowledge and based on testing with stakeholders, there is no compelling argument for a corresponding benefit realised by limiting the period of saleability to this time period.

Furthermore, there are arguably few foreseeable risks to the objectives of the WELS Scheme if this period were increased to provide businesses with more certainty when purchasing products from manufacturers (especially international ones). On this basis, the current time period that suppliers potentially have to sell products does not appear to be appropriate.

While the potential period for the sale of a product may not be appropriate, the existence of a common expiry date (January 21) delivers benefits to both industry and government. This provides industry with a single date on which to renew all registrations (avoiding costs with tracking multiple expiry dates) and allows government to realise administrative efficiencies associated with registration and compliance.

More broadly, appropriate public policy should seek to minimise regulatory burden wherever possible so long as it does not contradict the objectives of the government action, compromise future benefits or present unacceptable levels of risk. The Review found no evidence to suggest that removing some of the regulatory burden imposed by the WELS Scheme affecting product suppliers

(retailers and wholesalers) would contradict the Scheme's objectives, compromise expected benefits or expose the public to unacceptable levels of risk. Options that seek to remove parts of this burden are presented in Section 9.

Finding 27:

The indirect costs imposed by the WELS Scheme on product suppliers are not unreasonable, but may be material.

Regulatory burden on WELS Scheme registrants

In addition to indirect costs borne by suppliers, WELS Scheme registrants also reported a degree of regulatory burden not captured in reporting of direct financial costs.

Indirect administrative costs to registrants are mainly associated with the costs of product registration. While a number of stakeholders viewed the time cost of registration as overly burdensome, others noted that recent improvements to the online portal registration process mean that the cost per product is now more manageable (i.e. provided registrants are organised and have test certificates and other documents on hand) (see Section 7.3.1). Overall, evidence suggests that the time cost of registering new products with the WELS Scheme is now appropriate based on recent improvements to the online portal process.

However, overall costs could be burdensome for the small number of registrants required to register large numbers of new products on an annual basis, such as new market entrants registering their entire catalogue for the first time. As noted in Section 7.3.1, it is more likely that most registrants are for the most part renewing current products (potentially 90 per cent of their product lines), of which associated time costs appears to be negligible based on evidence provided to the Reviewer.

The costs to registrants of uploading WaterMark Licence documentation in the WELS Scheme registration process is also likely to be negligible for most (Section 7.3.1), and those that incur higher costs due to the registration of a large amount of products are arguably in a better position to manage the administrative costs associated with this requirement. Despite this, there is a broader question around whether or not it is appropriate for the Department to request the licence be provided in the first place. While there is a valid argument that this provides a point of sale check for the WaterMark Scheme (which could deliver avoided costs for other parts of government – see Section 6.2.2), the WELS Scheme's objectives are about water efficiency, not ensuring that a product is fit for purpose (Section 5.1). On this basis, there is arguably no compelling reason for the WELS Scheme to ensure a product has a valid WaterMark Licence.

Taking into account the above evidence, while it is clear that there are examples of regulatory burden that could be removed to reduce costs for WELS Scheme registrants, the Reviewer is broadly satisfied that recent improvements made to the registration process (which significantly reduced costs compared to previous years) make the reported level of regulatory burden for product registrations generally acceptable.

Finding 28:

The regulatory burden imposed by the WELS Scheme on product registrants has reduced in recent years and is now broadly acceptable.

Underlying causes of regulatory burden for both WELS Scheme suppliers and registrants

While regulatory burden on both suppliers and registrants may be broadly acceptable (despite improvements that can likely be made), industry stakeholders reported that many of the indirect costs of the WELS Scheme are related to the fact that the registration period is one year and therefore many actions must be repeated annually, with little benefit corresponding with this frequency of action. Some stakeholders suggested that this one year registration period was not appropriate, and that a longer period (potentially moving back to a five year registration period as for pre-2013) would be more appropriate because many actions would not need to be undertaken as frequently.

It has previously been noted that many products required to be registered under the WELS Scheme are also covered (for different purposes) by the WaterMark Scheme or the E3 Program. However, the current annual registration cycle of the WELS Scheme does not align with these other schemes. For example, a clothes washing machine must be registered under the WELS Scheme on an annual basis but with the E3 Program it must be registered on a five yearly cycle. Industry stakeholders suggested that this misalignment further exacerbated the regulatory burden for WELS Scheme registrants and suppliers because they had to manage multiple timelines, regulations and associated registration and compliance activities.

In consultation some stakeholders (primarily whitegoods manufacturers) suggested that better aligning the registration cycles of the WELS Scheme and E3 Program, and potentially the WaterMark Scheme, could reduce regulatory burden and make administration easier for both registrants and suppliers. While the Reviewer is unable to quantify what benefit might be realised from such an outcome, it is reasonable to conclude that aligning such periods would reduce some level of burden and make the overall level of associated cost more appropriate.

Finding 29:

Better aligning the registration periods of the WELS Scheme, E3 Program and WaterMark Scheme could realise administrative efficiencies for registrants and suppliers and reduce reported levels of regulatory burden.

8.1.6 Product coverage, performance and standards

The WELS Scheme includes water-using products across seven product categories. Stakeholders consulted for this Review called for various changes to product coverage, such as expanding or contracting the number of categories, introducing minimum water efficiency standards across more categories, extending coverage to second hand and products for personal use, and modifying standards to allow better access to market for innovative products.

Expanding product coverage

Based on commissioned independent analysis (Australian Government 2015e), a product shortlist for potential inclusion (in addition to the seven incumbent categories) in the WELS Scheme was agreed by Australian governments and the National Water Commission in 2006–07. Shortlisted products included: hot water circulators; domestic irrigation controllers; evaporative air conditioners, and instantaneous gas water heaters.

Analysis and modelling undertaken between 2008 and 2010 concluded that, despite all the shortlisted products having the ability to save water, in the case of hot water circulators and domestic irrigation controllers, difficulties existed in estimating the water actually saved (Australian Government 2015e). Based on such difficulties, these two product categories were omitted from consideration for inclusion.

However, further research highlighted that evaporative air conditioners and instantaneous gas water heater products were suitable for inclusion under the WELS Scheme (Australian Government 2015e). Regulatory impact statements were expected to be undertaken between 2012 and 15 (WELS Scheme Strategic Plan 2012–15).

Stakeholders consulted for this Review indicated that while instantaneous gas water heaters could be included under the WELS Scheme, it is likely that the benefits of doing so would be marginal. Others argued that if such products were included, more rigorous research into the performance of the current product range was necessary to assess their suitability to be rated under the WELS Standard. Similarly, industry stakeholders believed that more work was needed to determine the potential for water savings to be achieved by evaporative air conditioners to justify their inclusion in the WELS Scheme.

Beyond consideration of the shortlisted products, the Reviewer is not aware of any other viable product categories that have been proposed for inclusion. While some stakeholders pointed to the potential inclusion of non-residential and outdoor products under the WELS Scheme (e.g. sprinklers and irrigation systems), the Reviewer considers these to be sufficiently covered under the Smart Approved WaterMark Program and it would not be appropriate for them to be included under the WELS Scheme.

Overall, there was little support to extend types of products covered under the WELS Scheme. In addition, the current products covered are for the most part consistent with similar schemes operating internationally (see Appendix H).

Finding 30:

There is little support to extend the range of products covered by the WELS Scheme, and potentially low marginal benefit from doing so.

Removal of products currently covered under the WELS Scheme

Calls have previously been made by industry stakeholders to reduce the types of products covered under the WELS Scheme – including removing tap equipment and dish washing machines.

Removal of tap equipment

In consultation for this Review, some industry stakeholders primarily focused on the removal of tap equipment from the WELS Scheme. The majority of claims justified its removal based on three arguments:

1) Tap equipment is easily tampered with, which negates water saved.
2) Tap equipment contributes negligible overall water savings under the WELS Scheme.
3) Tap equipment represents a disproportionate level of burden in the system – greater than 50 per cent by total number of all products registered.

In consultation, plumbing retail stakeholders claimed that flow controllers were easily removed from taps by consumers or plumbers, therefore negating the star rating validity and water saving benefits. A number of other stakeholders provided similar anecdotal accounts, even examples of where plumbers were actively explaining to consumers how to do this. Based on stakeholder accounts of how to remove flow controllers, it appears that almost any consumer would be able to easily complete this procedure with little technical ability.

While the Reviewer is concerned by such accounts, the magnitude of this practice is unknown. Until the extent of the removal of flow controllers from taps can be established, and what impact this has on total water saved, no formal comment can be made on the validity of this argument.

In asserting that taps contribute negligible overall water savings (without the removal of flow controllers), a number of stakeholders referred to a 2008 cost effectiveness study, which projected that taps would only contribute 3 per cent of total water savings under the WELS Scheme by 2021 (ISF 2008). Considering this report in isolation, a persuasive argument can be made that tap equipment's inclusion may be unwarranted (negligible water saving impact from more than 50 per cent of all products registered).

However, updated projections made in 2014 estimated that tap equipment would contribute approximately 35 per cent of total water savings under the WELS Scheme.[50] While this is a significant change in percentage of total water saved, the Reviewer understands that it is due to a number of methodological changes. Because the Reviewer is not in a position to comment on the validity of the modelling, the 35 per cent estimate must be taken on face value as the most robust estimate to date. Based on this updated projection, removal of tap equipment from the WELS Scheme would likely significantly compromise future outcomes of the Scheme and would not be an appropriate course of action.

Finding 31:

Based on water saving modelling undertaken in 2014, it is appropriate that tap equipment remain covered by the WELS Scheme.

Removal of dish washing machines

In addition, a very small number of stakeholders raised questions about the appropriateness of future inclusion of dish washing machines in the WELS Scheme. It is generally accepted by industry that modern dish washing machines use a relatively small amount of water (even those classed as not efficient) and constitute a very small percentage of total average household water use. A number of recent end use water studies in Australia found that dish washing machines only contribute between 1 and 2 per cent of total household water use (Arbon et al. 2014, Beal and Stewart 2011, Carragher et al. 2012, Willis et al. 2009, Gan and Redhead 2013) (Table 9).

[50] This shift in projected water saved is associated with a mythological change that the ISF implemented in the 2014 modelling.

Table 9. Dish washing machines as a percentage of total household water use

Product	Min water use as percentage of household use	Max water use as percentage of household use
Showers	15	35.9
Taps	7	21.9
Toilet equipment	10	20.7
Clothes washing machines	13	24
Dish washing machines	0.8	2

Source: Arbon et al. 2014, Beal and Stewart 2011, Carragher et al. 2012, Willis et al. 2009, and Gan and Redhead 2013.

Based on the evidence presented in Table 9, it appears that the uptake of more efficient dish washing machines in households that don't have efficient ones is only likely to have a very marginal impact on total water household water use and thus total water savings. Indeed, projections made in 2014 estimate that dish washing machines will only contribute approximately 2 per cent of total water savings under the WELS Scheme (ISF 2014).

However, it is noteworthy that in consultation for this Review there was no strong push by whitegoods manufacturers for the removal of dish washing machines the WELS Scheme – indicating that the costs of their inclusion are not overly burdensome or manufacturers actually see benefit in their inclusion. Furthermore, dish washing machines only currently account for approximately 3 per cent of total products registered, and therefore their estimated share of total water savings appears in line with this and not inappropriate.

In addition, while the scope for further efficiency gains and water saved may be small, retention of dish washing machines in the WELS Scheme maintains the overall visibility of the Scheme at point of sale, and ensures that information about water efficient dish washing machines continue to be available to consumers. Indeed, as discussed later in Section 8.2.1, consumers appear to be purchasing more efficient dish washing machines despite the marginal gains expected. On balance, removing dish washing machines from the Scheme would ultimately risk backsliding on its objectives and is unlikely to be an appropriate course of action at this time.

Finding 32:

The removal of dish washing machines from the WELS Scheme is not an appropriate action at this point in time.

Minimum water efficiency standards replacing the star rating system

Minimum water efficiency standards currently exist for toilet and clothes washing machine products (as determined in the WELS Standard), below which products cannot be registered with the WELS Scheme and are thus illegal to sell. However, both types of product also receive a star rating, which is displayed on a label accompanying the product at point of sale. The minimum water efficiency standard is simply a 'floor' that manufacturers can choose to exceed if they wish.

The 2010 Review recommended that a regulatory impact statement be undertaken to assess the costs and benefits of removing water efficiency star ratings for all plumbing products covered under the WELS Scheme (e.g. tap equipment), and instead prescribe a minimum standard. Under such a

scenario, all plumbing products would not be required to display a star rating at point of sale. Rather, consumers would rely on the fact that the product meets a minimum level of water efficiency.

Market research (Quantum 2014) suggests that the rating label provided at point of sale is not necessarily frequently used by consumers when purchasing some plumbing products. There are also costs involved for registrants and suppliers in ensuring that this label is in place and accurate (Section 7.3.2 and 7.4.3). On this basis an argument (albeit weak) could be mounted for removal of the star rating for all plumbing products.

While in theory it is considered possible to extend minimum water efficiency standards across other plumbing product categories (in addition to toilets which already have stipulated minimum water efficiency standards), the Plumbing Code of Australia stipulates that cold water outlets for showers, basins and kitchen sinks must not have a flow rate exceeding 9 litres per minute (ABCB 2015). This stipulation effectively acts as a minimum standard for new residences in that all showers and taps installed should function at a minimum of a WELS 3 star (or above) product.

Furthermore, and as introduced in Section 8.2.1, the market share that inefficient shower, tap, flow controller and urinal products hold has reduced significantly over the past 10 years – in some cases to negligible numbers under each category. This reduction appears to have been driven by general market forces and not by the intervention of government through the introduction of a minimum efficiency standard.

The removal of point of sale star rating labelling for any plumbing products would contradict the fundamental objective of the WELS Scheme to provide information to consumers. In addition, stakeholders were generally not in favour of the introduction of minimum water-efficiency standards for plumbing products in isolation (i.e. leading to removal of point of sale star rating labels). Some argued that such an outcome would likely lead to a reduction in the range of products in the market, thereby constraining consumer choice and contravening the third object of the WELS Act 2005. Others pointed to implications a minimum standard in isolation might have for market competition and innovation – including that there would be no incentive for manufacturers to exceed the minimum standard.

On the balance of evidence, the Reviewer is confident that removal of point of sale star rating labels for all plumbing products and introduction of minimum water efficiency standards in isolation would not be appropriate, based on needing to meet the fundamental objectives of the WELS Scheme.

Finding 33:

The introduction of minimum water efficiency standards for plumbing products without point of sale star rating labels would be inappropriate and contradict the objectives of the WELS Scheme.

Minimum water efficiency standards in combination with the star rating system

On the basis of Finding 33, most stakeholders saw benefit in an approach where minimum water efficiency standards were introduced for all plumbing products in combination with retention of the star rating labelling system currently in place. This model appears to have been successful in driving efficiency gains in toilet products and clothes washing machines under the WELS Scheme to date.

The Reviewer broadly agrees with this line of argument in that such an approach provides consumers with transparent information at point of sale and an incentive for manufacturers to deliver more water efficient and innovative products in a competitive marketplace, but at the same time provides a floor below which highly inefficient products (which work against the objectives of the WELS Scheme) cannot be sold.

However, based on the now relatively small number of highly inefficient products in the market across plumbing product categories, and the apparent ability of market forces to reduce the prevalence of these products, there is arguably marginal benefit in introducing a minimum standard. On this basis, current arrangements may be the most appropriate.

Finding 34:

The introduction of minimum water efficiency standards for all plumbing products in addition to water-efficiency star ratings would likely only provide marginal benefits.

Coverage of second hand products and products for personal use

While a very small number of stakeholders argued that water efficiency labels should be displayed at point of sale on second hand products if required when new, stakeholders generally agreed that it would likely be ineffective to do so based on the complexity, administrative costs and marginal benefits gained from such a relatively small section of the market.

In addition to second hand products, some retail stakeholders claimed that individual consumers are increasingly able to import water-using products directly from international retailers and effectively bypass the WELS Scheme in the process. It was contended that this practice is to the detriment of domestic manufacturers and retailers, and ultimately is a poor outcome for Australian society. The Reviewer was unable to uncover any evidence to determine the scale of individual consumer importation of products required to be registered under the WELS Scheme.

It is likely that these consumers remain at the margins, and it remains illegal for consumers to supply non-registered WELS Scheme products to licensed plumbers to install on their behalf.[51] While some consumers may be able to install products themselves (such as showerheads and whitegoods), circumventing the use of a certified plumber may be unlikely for other products. In addition, consumer importation of large and bulky whitegoods may be less common given likely inefficiencies in individual freight costs, and a high degree of competition in the local market for these products.

From other evidence presented to the Reviewer, it was clear that like second hand products, the WELS Scheme should not cover sales for personal use (meaning non-commercial imports) – including products personally imported from international suppliers. Similarly, covering such products under the WELS Scheme would likely be ineffective, costly and realise few benefits.

Finding 35:

It is not appropriate to include second hand products and non-commercially imported products under the WELS Scheme.

[51] Note, compliance obligations under the WaterMark Scheme continue to apply.

Product standards restricting access to market
The Reviewer was provided with evidence that inconsistencies in product standards used by the Regulator to determine registration eligibility has in the past restricted access to market for some innovative products. The stakeholder in question argued that the WELS Standard excludes the ability to register a WELS 6 star toilet, thus making it illegal to supply and sell that product (Azzurra 2015).

The Reviewer questioned the Department on this point and was informed that while there are still inconsistencies related to the WELS Standard, a solution has been found in this case which allows a WELS 6 star toilet to legally be sold and supplied to the market.

8.2 Effectiveness

The Terms of Reference for the Review require that an assessment be made as to how effective the WELS Scheme has been in meeting its objectives, and delivering outcomes now and into the future. This subsection covers an assessment of the effectiveness of:

- meeting of the WELS Scheme's objectives (Section 8.2.1)
- stakeholder engagement mechanisms (Section 8.2.2)
- communication and reporting (Section 8.2.3)
- compliance and enforcement – including how equitable the current approach has been (Section 8.2.4).

8.2.1 Effectiveness of meeting the WELS Scheme objectives

It is likely that, had the WELS Scheme not been established, and the pre-2005 voluntary water efficiency labelling scheme arrangements continued, the various benefits to consumers, the environment and society more broadly would not have been realised. Evidence gathered by the Reviewer and assessed below indicates that the Scheme has been, and will continue to be, effective in achieving its stated and other indirect objectives.

As noted in Section 3.1, the WELS Scheme has three primary objectives:

1) To conserve water supplies by reducing water consumption.
2) To provide information for purchasers of water-use and water-saving products.
3) To promote the adoption of efficient and effective water-use and water-saving technologies (WELS Act 2005).

The effectiveness of the WELS Scheme in meeting these respective objectives is assessed below.

WELS Scheme Objective 1 – Reducing water consumption
One of the central objectives of the WELS Scheme is to reduce water consumption. As noted in Section 6.2.1, it has been estimated that 70,000 ML of water was saved due to the Scheme in 2013 and that by 2030 it will have saved 204,000 ML per annum – equivalent to more than three quarters of Melbourne's total current annual residential water use (Melbourne Water 2015). By 2030, cumulative water savings are expected to exceed 2,853 GL (ISF 2014) – approximately equal to the total volume of urban water supplied across the whole of Australia in 2013–14 (NWC 2014).

Despite the estimated and projected water savings, the Reviewer found it difficult to accurately pinpoint the degree to which savings delivered under the WELS Scheme have led to observed reductions in water consumption across Australian society. However, on the basis of the available evidence (see Section 6.2.1) it is likely that establishment of the scheme and its ongoing operation has led to permanent reductions in water consumption, in turn likely leading to the conservation of water supplies (Finding 1 and 2). Based on this, it is reasonable to conclude that the WELS Scheme is meeting the first WELS Act 2005 object of conserving water supplies in an effective way.

Finding 36:

The WELS Scheme is effectively meeting the first WELS Act 2005 objective of conserving water supplies.

WELS Scheme Objective 2 – Providing information about water efficiency to consumers

The second objective of the WELS Scheme is to provide information to consumers about the relative water efficiency of products.

Recognition and awareness

In 2014, the Department commissioned market research to assess consumer awareness of the WELS Scheme. The research looked specifically at the awareness of, and perception of credibility of, the water-efficiency rating labels. It attempted to establish the importance of the information provided by the Scheme to consumers in the product purchase decision making process – including differences between certain products covered under the Scheme.[52]

The 2014 market research found that 87 per cent of consumers recognised the water efficiency label – a 34 per cent increase from data collected in 2008 (Quantum 2014).[53] Furthermore, as noted previously, 83 per cent of consumers indicated that they viewed the WELS Scheme as 'very' or 'quite' credible, and that because it is a government regulated initiative they have confidence in the information provided (Quantum 2014).

Reported use of information

The 2014 market research found that water efficiency was the most important consideration for consumers purchasing showers and flow controllers, and second most important in the purchase of toilets (price or value for money being most important in this case by 0.1 percentage points) (Quantum 2014). The fact that water efficiency is an important consideration in the purchases of some products should, all other factors being equal, lead to the use of water-efficiency information if it is provided at point of sale.

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[52] Quantum Market Research's 2014 study built on separate market research conducted by the Department in 2008, 2009 and 2011. Quantum's research was based on a sample of 1,536 interview participants, constituting a nationally representative sample. Participants were selected based on whether they had purchased a designated product in the past 12 months or intended to purchase a product in the next 12 months. The research only focused on a subset of all designated products, namely toilets, showers, flow controllers and tap products.

[53] The figure of 87 per cent recognition is broadly corroborated by market research undertaken by Newspoll in 2012 and 2014. Newspoll's research (commissioned by Smart Approved Watermark) showed that in 2014, 84 per cent of consumers recognised the WELS Scheme water efficiency rating label.

Unfortunately, the 2014 market research showed that water efficiency is not as important in relation to the purchase of taps. Consumers generally consider price and value for money, and appearance, look and design as the most important considerations in these purchases, with water efficiency the third most important consideration (Quantum 2014). Furthermore, in the purchase of tap products, approximately 30 per cent of consumers were unaware that they had a water efficiency rating (Quantum 2014).

Despite these findings, industry stakeholders generally viewed that information provided under the WELS Scheme (such as the point of sale star rating labels) was useful and effective in allowing consumers to compare products before purchase. Based on their experience, most stakeholders believed that the amount and complexity of information provided was adequate, and addressed the problem of information asymmetry between consumer and manufacturer (see Section 6.2.3).

However, some stakeholders, especially those in the plumbing retail sector, were of the opinion that consumers rarely considered the information provided by the water efficiency labels at point of sale. These stakeholders argued that this information was not influential in the purchase of plumbing products – which is in part supported by the 2014 market research findings, at least insofar as they relate to tap equipment.

It was also contended by some stakeholders that many consumers who purchase properties 'off the plan' (either high-density residential and commercial developments or home and land packages) are not exposed to information provided by the WELS Scheme at point of sale because developers generally make purchases on their behalf.[54] It was claimed that developers generally make decisions based on a 'low price, looks good' philosophy, where the best looking, lowest price product that meets minimum water-efficiency standards is installed. It was argued that this approach undermines the information provided under the WELS Scheme.

Despite the fact that some consumers may not be exposed to WELS Scheme information, based on the evidence presented to the Reviewer, it appears that in most cases water efficiency information is being effectively provided and consumers are actively using it to inform their decision about what product to purchase.

Finding 37:

The WELS Scheme is effectively meeting the WELS Act 2005 objective to provide information for purchasers of water-use and water-saving products.

WELS Scheme Objective 3 – Promoting the adoption of more water efficient technologies

Given the establishment that installation of WELS Scheme products should lead to water savings (Finding 1) and financial benefits to consumers (Finding 7), and that they appear to be using the WELS Scheme information to inform decisions (Quantum 2014), rational consumers should be

[54] One stakeholder argued that less than 30 per cent of consumers make an individual purchase of tap products; however, this figure could not be independently verified by the Reviewer.

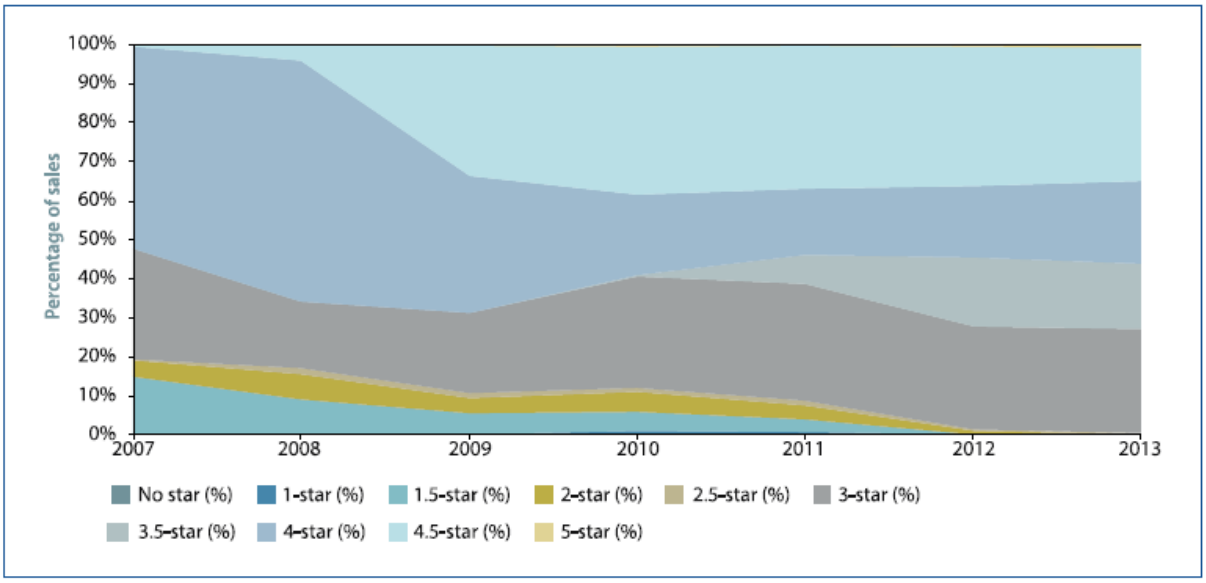
adopting more efficient products and producers should be responding by supplying them.[55] This behaviour should result in the increased adoption of more water efficient technologies over time.

Evidence of consumer purchase and adoption

To establish whether or not consumers are actually adopting (purchasing) more water efficient products and technologies, one source of evidence is observed sales data and product stock surveys of households over time.[56] Poor availability of sales data limits a full assessment across all WELS Scheme product categories; however, some stronger conclusions can be made regarding clothes washing machines and dish washing machines.

Sales data for clothes washing machines (both top and front loaders) in Australia indicate a general shift towards the adoption of more water-efficient products since 2007 (ISF 2014). Figure 14 shows a steady contraction of sales of WELS 2.5 star and below machines since 2007, at the same time as WELS 3 star and above machines have grown as a percentage of total sales. Notably, between 2007 and 2013 there has been an almost 6,000 per cent increase in sales of WELS 4.5 star machines.

Figure 14. Clothes washing machine product sales in Australia – 2007 to 2013



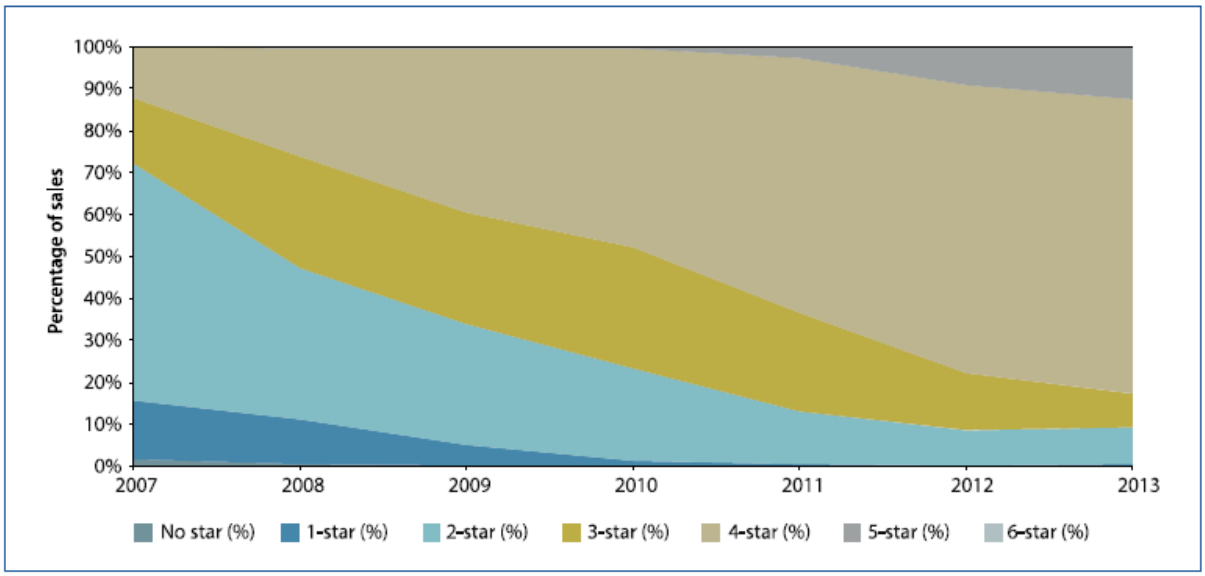
Source: ISF 2014.

Sales of dish washing machines since 2007 have followed a similar, if not more dramatic, trajectory towards the purchase of more water efficient products (Figure 15) – notably in contradiction to the potential total water savings realised for purchasing such products (see Section 8.1.6). In 2007, WELS 3 star and below dish washing machines accounted for close to 90 percent of all sales; however, by 2013, machines rated 3 star and below accounted for less than 20 per cent of all sales – a 70 per cent decrease. Over this time there has been a corresponding increase in sales of WELS 4 star and above machines.

[55] Producers are also likely to be driven by minimum standards and other regulations – i.e. not necessarily just responding to demand.

[56] Household product stock survey meaning of the total number of products in households across Australia. Not to be confused with business stocktakes.

Figure 15. Dish washing machine product sales in Australia – 2007 to 2013



Source: ISF 2014.

While robust sales data is not readily available for other WELS Scheme product categories, anecdotal evidence suggests that:

- Product sales of showers are now dominated by purchases of WELS 3 star rated products, with suppliers and retailers reporting that approximately 90 per cent of sales are in the range of 7.5 litres and 9 litres per minute (ISF 2014).
- Sales of toilets in 2014 were almost entirely WELS 4 star rated models – shifting from a market in 2007 where mostly WELS 3 star models were purchased (ISF 2014).[57]
- Purchases of taps for use in kitchens have increased to WELS 4 star, while taps for use in the bathroom or laundry are now mainly WELS 5 or 6 star (ISF 2014).

Data from the Australian Bureau of Statistics (ABS 2013) corroborates the above product sales trends, showing that over 34 per cent of households had a front loading washing machine in 2013 compared with 28 per cent in 2010.[58] The ABS research also found that approximately 69 per cent of households in 2013 had water efficient shower heads installed, compared to 55 per cent in 2007 (ABS 2013).

Industry and some retail stakeholders broadly agreed that the WELS Scheme promotes the purchase by consumers of more water efficient technologies. Furthermore, public sector agencies indicated to the Reviewer that they include environmental considerations in their procurement policies, which favour the purchase of water efficient products – with some even referencing the Scheme (see Section 6.2.2).

[57] WELS 3 star toilets – 6 (full) and 3 (half) litre flush – have been mandatory under state and territory plumbing codes since before the introduction of the WELS Scheme.

[58] Based on the assumption that front loading washing machines are generally more water-efficient than top loading washing machines. No assessment was made based on the WELS Scheme rating system.

In contrast, stakeholders from the plumbing products sector did not agree that the WELS Scheme has led to the adoption of more efficient plumbing products. However, these stakeholders were unable to provide any evidence to support this view.

It is important to note that rebate programs (external to the WELS Scheme) may have also driven consumer preference towards the adoption of products that are more efficient. Given the prevalence of showerhead exchange or rebate programs over the past decade, this may have been, and continue to be, an influential factor in relation to the sale of more water efficient showers in particular.

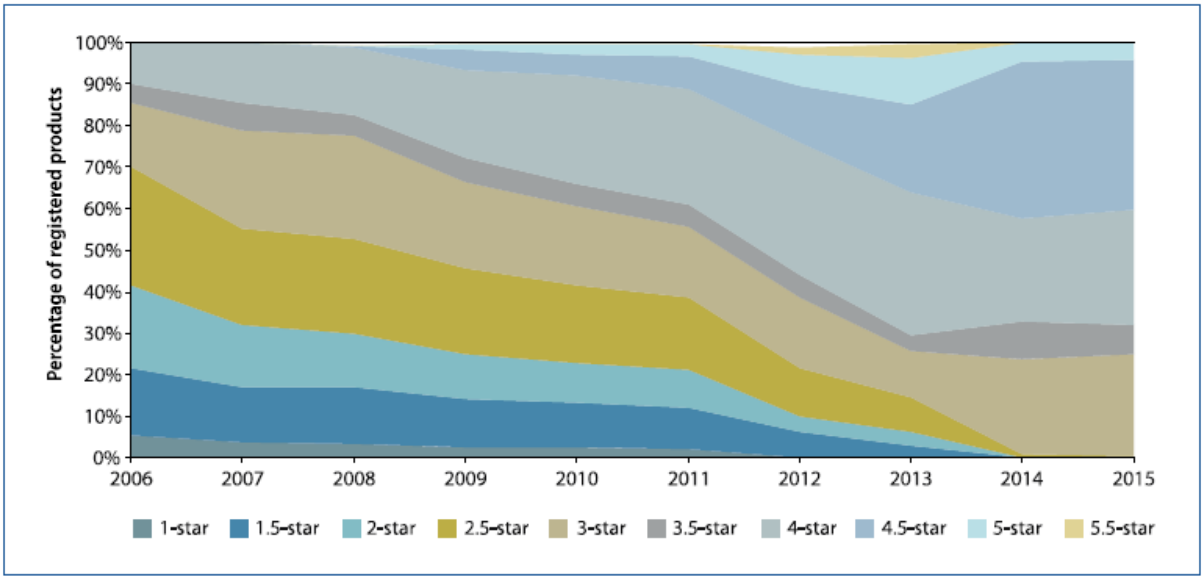
Evidence of the supply of more efficient products

While it appears that consumers are on the whole purchasing more water-efficient products than they were prior to establishment of the WELS Scheme, it is less clear if this is a result of consumers responding to what manufacturers are providing to market (i.e. more water efficient products are being provided and therefore consumers can no longer purchase inefficient products) or whether consumers are making active decisions based on information provided and manufacturers are responding accordingly. The answer is likely to be a combination of both.

Whatever the case may be, there has been a marked increase in the 'baseline' efficiency of products delivered to market by manufacturers. This increase in product efficiency has effectively raised the floor and means that there are now very few highly-inefficient products at market. While this outcome arguably limits consumer choice (some may want an inefficient product for various reasons), on balance the general increase in baseline efficiency of products should drive the adoption of more water efficient technologies over time.

Clothes washing machines have seen a marked increase in baseline efficiency, from 2006 with approximately 70 per cent of the market represented by WELS 2.5 star rated products or below, to now representing less than 1 per cent (Figure 16). WELS 4 star or above products now dominate what is available to consumers at the market in 2015.

Figure 16. Clothes washing machine percentage of product star ratings – 2006 to 2015

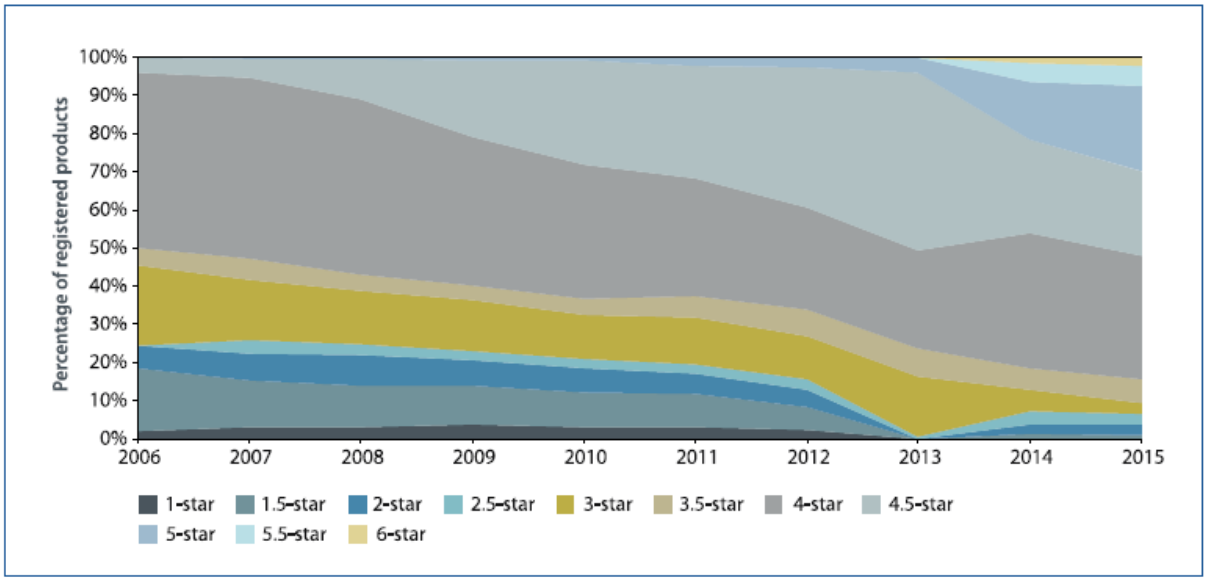


Source: Aither, based on Australian Government 2015d and ISF 2014.

Note: Data for 2015 was downloaded from WELS Scheme Product Register on Thursday 9 April 2015.

The market for dish washing machines has shifted from 2006 where more than 50 per cent of the market was represented by WELS 3.5 star products or below, to now with WELS 4 star or above products accounting for more than 85 per cent (Figure 17). In addition, there has been a sharp growth in the availability of highly water efficient products (more than WELS 5 star) in the market in the past 3 years – representing close to 30 per cent in 2015.

Figure 17. Dish washing machine percentage of product star ratings – 2006 to 2015

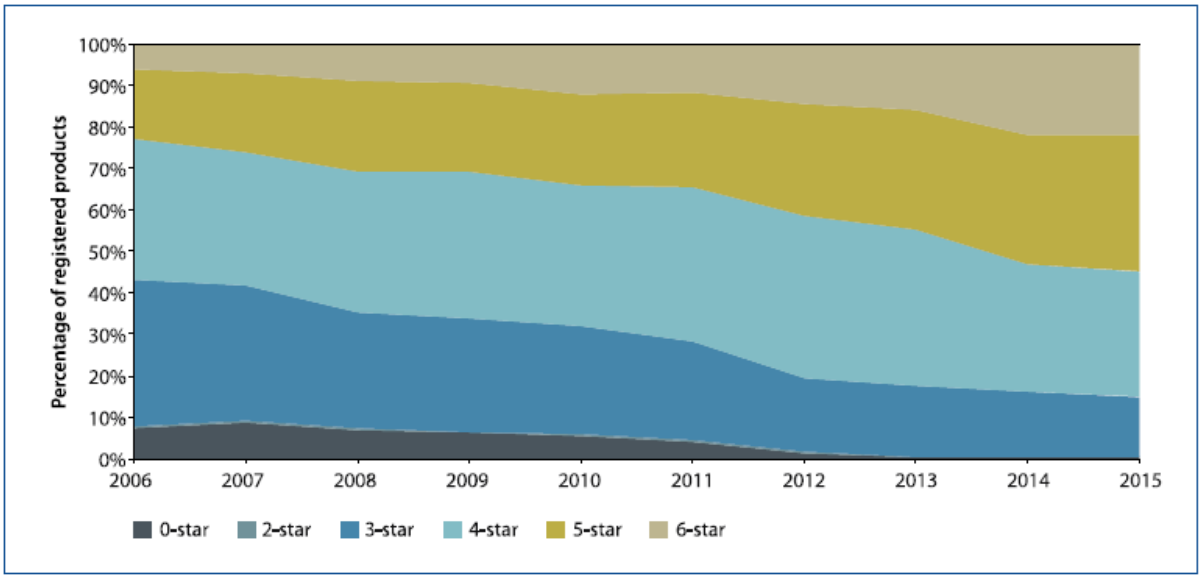


Source: Aither, based on Australian Government 2015d and ISF 2014.
Note: Data for 2015 was downloaded from WELS Scheme Product Register on Thursday 9 April 2015.

Stakeholder consultation revealed that in relation to clothes washing machines and dish washing machines, it is likely that the general water efficiency of products provided to market is driven as much by competitive pressures created by the dual water and energy efficiency rating as it is by consumer preference for more water efficient appliances. If this holds, it could be argued that the E3 Program is indirectly driving the adoption of more water efficient technologies as well.

The baseline efficiency of tap equipment provided to market has also steadily increased since 2006 (Figure 18). In 2015, more than 85 per cent of taps provided to market are WELS 4 star or above, compared to less than 60 per cent in 2006.

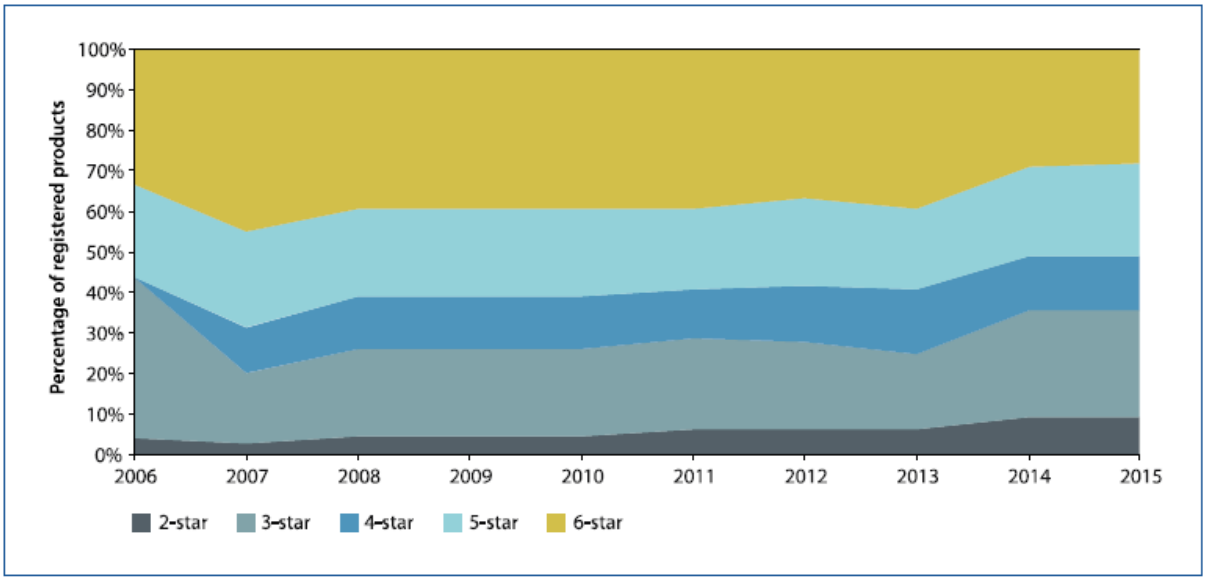
Figure 18. Tap equipment percentage of product star ratings – 2006 to 2015



Source: Aither, based on Australian Government 2015d and ISF 2014.
Note: Data for 2015 was downloaded from WELS Scheme Product Register on Thursday 9 April 2015.

The efficiency of flow controllers in the market has remained steady, if increasing marginally since 2006 (Figure 19). However, it is understood that flow controller registration was voluntary until 2013–14, and the increase in registrations at that time may be why efficiency has decreased over the past two years.

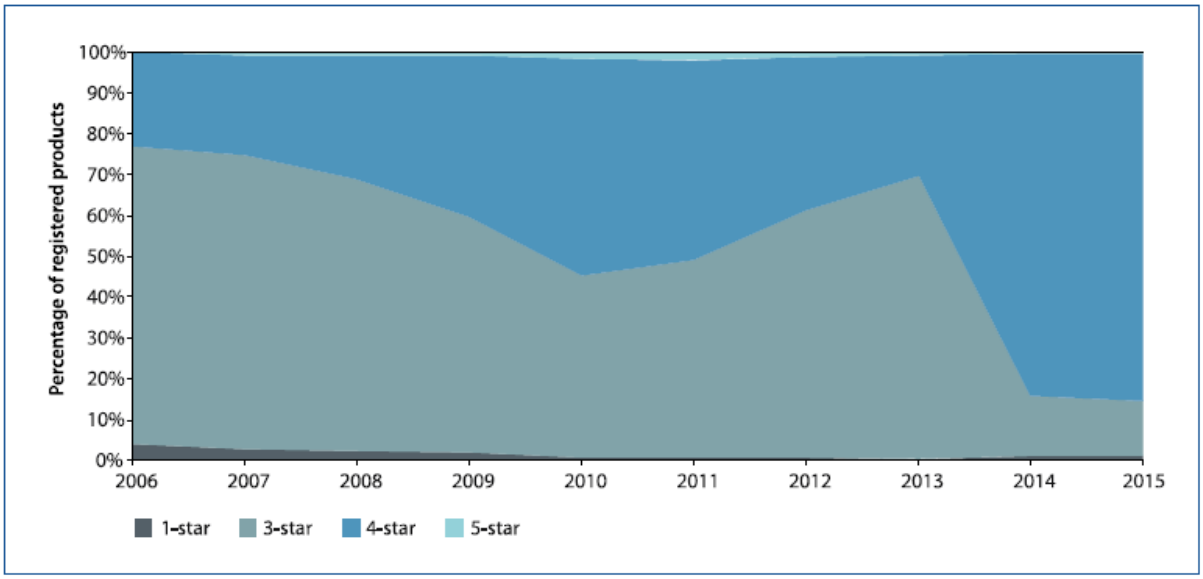
Figure 19. Flow controller percentage of product star ratings – 2006 to 2015



Source: Aither, based on Australian Government 2015d and ISF 2014.
Note: Data for 2015 was downloaded from WELS Scheme Product Register on Thursday 9 April 2015.

Since 2006, WELS 4 star toilet products have risen from less than 25 per cent of the market to approximately 85 per cent (Figure 20). It is now difficult for consumers to purchase a toilet that is less than WELS 3 stars (due to minimum efficiency standards). Some less efficient products remain, based on the need for exceptions where extremely low water pressure exists.

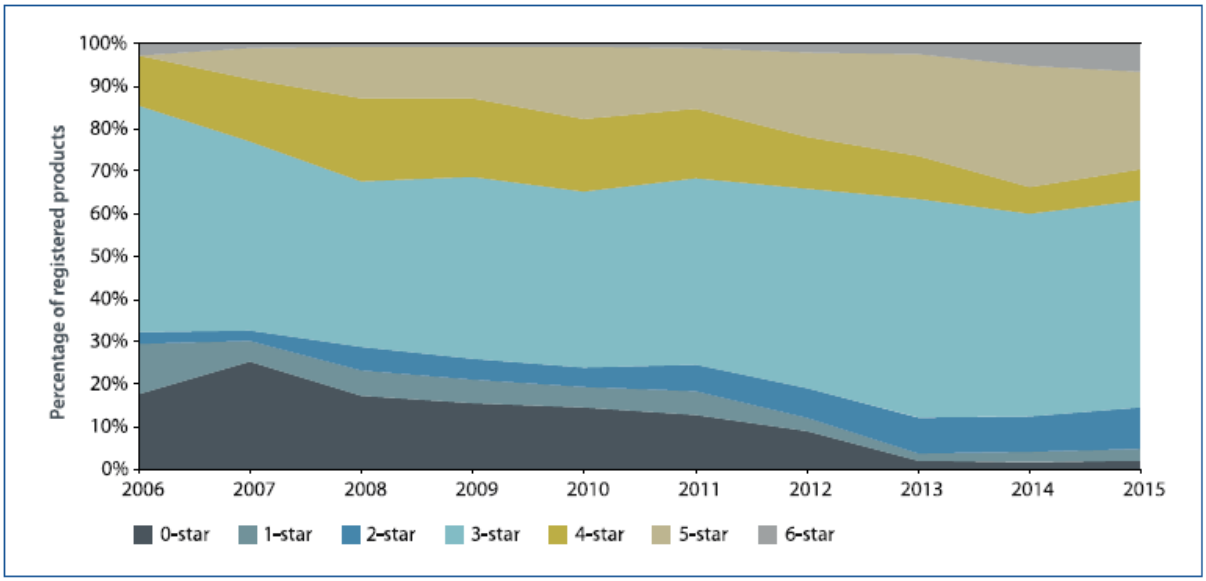
Figure 20. Toilet percentage of product star ratings – 2006 to 2015



Source: Aither, based on Australian Government 2015d and ISF 2014.
Note: Data for 2015 was downloaded from WELS Scheme Product Register on Thursday 9 April 2015.

The urinal equipment market is now dominated by WELS 3 star and above products (more than 90 per cent in 2015 compared to less than 70 per cent in 2006) (Figure 21). There has also been an increase in WELS 4 star and above products, which in 2015 account for over 40 per cent.

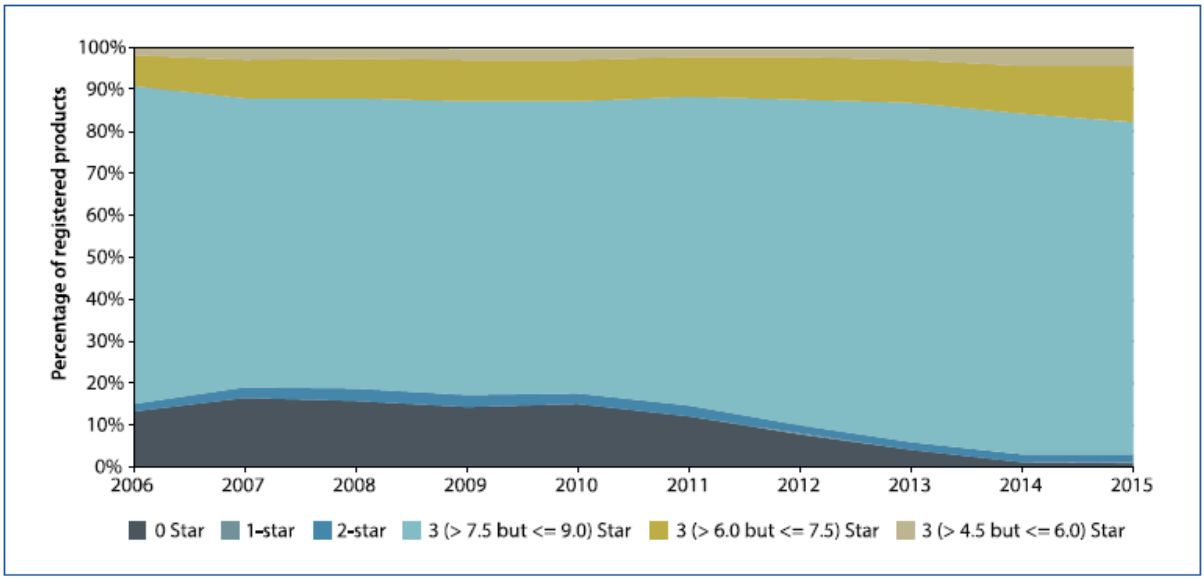
Figure 21. Urinal equipment percentage of product star ratings – 2006 to 2015



Source: Aither, based on Australian Government 2015d and ISF 2014.
Note: Data for 2015 was downloaded from WELS Scheme Product Register on Thursday 9 April 2015.

The market for shower products has witnessed a steady decline in WELS 2 star and below products (now representing less than 3 per cent of the market combined) (Figure 22). WELS 3 star (greater than 7.5 litres but less than 9 litres per minute) showers continue to dominate the market – growing market share by 4 per cent since 2006 and now accounting for some 80 per cent of the market.

Figure 22. Shower percentage of product star ratings – 2006 to 2015



Source: Aither, based on Australian Government 2015d and ISF 2014.
Note: Data for 2015 was downloaded from WELS Scheme Product Register on Thursday 9 April 2015.

For product categories where consumers are making less active purchase decisions, such as some of the plumbing products noted above, it is likely that the relative increase of more efficient products at market has to some degree been driven more by minimum water efficiency standards and building or plumbing codes than by consumer preference.

Despite sales data gaps and some uncertainty surrounding the drivers of the efficiency of products available to consumers at market for some products, evidence gathered suggests that:

- consumers are making active decisions to adopt more efficient products even though some inefficient products are still provided to the market
- responding to demand (or other drivers), manufacturers are on the whole increasing the general efficiency of products available at market.

On this basis, it is reasonable to conclude that the information provided by the WELS Scheme and consumers' general use of this information has led to the adoption of more water efficient technologies over time.

Finding 38:

The WELS Scheme is effectively delivering on the WELS Act 2005 objective of promoting the adoption of efficient and effective water-use and water-saving technologies.

8.2.2 Effectiveness of stakeholder engagement mechanisms

Since the WELS Scheme's establishment, a number of mechanisms have been employed to engage broad stakeholder groups and affected businesses in its administration and operation. Since the 2010 Review, the main focus of stakeholder engagement for the Scheme has been on: WELSAG; WELSOG; sporadic stakeholder forums to explain key changes to the Scheme administration and operation; and general correspondence between the Regulator and stakeholders. Stakeholders provided mixed

responses about the effectiveness of these engagement mechanisms in informing and improving the Scheme's administration and operation.

Water Efficiency Labelling and Standards Advisory Group

While many stakeholders agreed that the establishment of WELSAG had 'strengthened industry engagement in the administration of the Scheme and has proven to be an effective vehicle for industry input' (CESA 2015), others expressed serious concerns about the group's frequency of convening, equitable representation, transparency, conflicts of interest management and dissemination of information to constituent stakeholders.

Concerned stakeholders pointed to omissions in representation on WELSAG, such as the retail plumbing and whitegoods sectors, and state and territory plumbing or building regulators. Concerns were also raised about the inadequate representation of consumers on WELSAG (one member representing the interests of consumer advocacy), when consumers are arguably the key stakeholders in the WELS Scheme.

Additional comments on this matter included concerns that the discussions of WELSAG were not trickling down to the constituents of WELSAG members because either there were inadequate minutes taken or members were withholding information from industry. On this basis, a number of stakeholders claimed that some members were gaining an unfair competitive advantage by being privy to details about the WELS Scheme that others were not – such as knowing about, and thus being able to plan for, administrative changes in advance.

It is understood that prior to December 2014, WELSAG had not met for over 18 months – despite a large amount of change in WELS Scheme arrangements over that time. Stakeholders questioned why this was the case, in some cases believing that WELSAG had indeed met but had not been transparently communicating details of discussions.

In addition to these concerns raised, there is a financial cost associated with the administration of WELSAG. Flights, accommodation and ground transfers, as well as other costs associated with its administration, directly add to the cost-base of the WELS Scheme. It is understood that for the 2013–14 financial year expectations were that WELSAG would cost approximately $18,000 to administer (assuming one meeting in Canberra) – although it is understood that WELSAG didn't actually meet in that year.

Notwithstanding the concerns of some stakeholders, the convening of WELSAG twice during the period of this Review has been an effective way to ensure industry views on the WELS Scheme are tabled, and any proposed changes tested with those they will ultimately affect.

In summary, despite the recognised value that WELSAG has delivered on specific points, the above evidence as a whole suggests that WELSAG, at least in its current configuration, could be improved to ensure that it is a more effective stakeholder engagement mechanism. However, it should be noted that a number of the issues and concerns expressed by stakeholders are largely out of the control of the Department and require industry cooperation to improve broader effectiveness.

Finding 39:

The administration and operation of WELSAG could be improved to enhance its effectiveness as a stakeholder engagement mechanism.

Water Efficiency Labelling and Standards Officials' Group

As noted in Section 3.3, WELSOG is constituted of representatives from state and territory governments that work with the Regulator, under an intergovernmental agreement, on legislative and operational matters related to the WELS Scheme. Evidence provided to the Reviewer suggested that WELSOG most recently met via teleconference in late March 2015 (and have convened for two others over the past year); however, the group has not met in-person in recent years.

When consulted by the Reviewer, members of WELSOG were of mixed opinions about its value and the level of engagement by some members. The Review found that WELSOG members had widely divergent levels of knowledge of, and engagement with, the WELS Scheme. Despite all members being required to approve certain WELS Scheme changes as well as providing financial contributions on an annual basis, some were not aware of the actual value of their respective government's annual financial contribution the Scheme. It is possible that this level of disengagement may be due to both changes of government and high levels of staff turnover at a state and territory level. Regardless of the driver, the Reviewer is concerned that some members have become disengaged with the process and this could have adverse impacts on the effectiveness of the WELS Scheme.

While some members perhaps lack the knowledge about the WELS Scheme to be more fully involved, almost all members consulted appear to be generally content with their involvement in the Scheme. The group overall seems to operate effectively in approving changes to legislation and administrative arrangements in a timely manner. However, some members did call for the Department to provide more notice of proposed determinations or changes to allow adequate time to brief their respective state and territory Ministers.

Finding 40:

WELSOG appears to generally operate effectively and there are relatively minor opportunities to improve knowledge (or awareness) and engagement.

Stakeholder forums effectiveness

It is understood that the Department facilitated three stakeholder forums in 2012 – in Brisbane, Sydney and Melbourne – which provided an opportunity to brief all WELS Scheme stakeholders and obtain feedback on proposed administrative changes. Prior to the forums, stakeholders were provided with a consultation paper, which outlined proposed changes and sought comments.

Industry stakeholders were generally of the opinion that these forums were an effective and productive way of engaging those that are not members of WELSAG or WELSOG. Importantly, the forums gave affected stakeholders (who sometimes feel isolated from the WELS Scheme's administration and operation – potentially due WELSAG's reported lack of true representation) a voice regarding WELS Scheme matters. When questioned about the effectiveness of these forums, many stakeholders called for them to be introduced as a permanent and annual fixture of the Scheme's stakeholder engagement strategy.

However, concerns were raised by some stakeholders who were unaware of the forums undertaken in 2012 or were unable to attend due to other commitments. Suggestions were made that sufficient notice should be given as to when and where these forums would be held and modern technology (e.g. live online video streaming) could be used to more effectively reach a broader audience, including those not necessarily able to travel to attend due to business or personal commitments.

Finding 41:

Stakeholder forums appear to be an effective mechanism to engage with a broad range of affected stakeholders (including those not captured by WELSAG or WELSOG) to inform and improve the WELS Scheme's administration and operation.

8.2.3 Effectiveness of communication and reporting

Evidence collected by the Reviewer suggests that roles and responsibilities within the WELS Scheme administration are clear (see Section 3); however, internal governance, while improving, appears to be poor at times or in some circumstances. Externally, stakeholders who'd had direct contact with the WELS Scheme and Regulator indicated that they were familiar with the responsibilities of the Department and were able to seek help and guidance if needed. Examples of correspondence provided by stakeholders highlighted that the Regulator and departmental staff have effectively engaged with them where necessary to overcome various registration and compliance issues.

On the other hand, some stakeholders (primarily those with little direct contact with the WELS Scheme, such as some product suppliers), did not have the same level of familiarity or understanding.

Confusion about linkages between WELS Scheme and other schemes

As noted in Section 5, for a number of stakeholders there appeared to be some level of confusion about the respective scope and purpose of the WELS Scheme as distinct from three other similar schemes, namely the:

- WaterMark Scheme
- E3 Program
- Smart Approved WaterMark Program.

At present, the only formal link between the WELS Scheme and the others is the requirement that showers, toilet equipment, urinal equipment, taps and flow controllers have a valid WaterMark Licence before WELS Scheme registration can be obtained. Beyond this regulatory pre-requisite, it is understood that there are no other formal linkages between the schemes. While reported that there have been various informal exchanges, principally between the WELS Scheme and WaterMark Scheme (such as general correspondence or ad hoc meetings between administrators), there is no formal record of an agenda for these interactions taking place.

Despite the lack of formal linkages existing between the WELS Scheme and other schemes, there are some similarities and overlaps, which have led some stakeholders to express confusion about scope and purpose or frustration about apparent duplication (see Appendix G for a comparison of the schemes).

Frustration amongst stakeholders appeared most apparent between the WELS Scheme and WaterMark Scheme, with a common perception that there is extensive and unnecessary overlap. However, in reality this overlap does not exist (see Section 5 and Appendix G). While it is not necessary for stakeholders to know the intricacies of the respective schemes' legislative basis, administrative arrangements, compliance mechanisms and revenue generation models, compliance

and promotion of each scheme is assisted by good stakeholder appreciation of their objectives, purpose and core operating basis.

A number of stakeholders also showed confusion between the WELS Scheme with the Smart Approved WaterMark Program. Some appeared to be unaware that the WELS Scheme does not cover outdoor products which are covered by the voluntary Smart Approved WaterMark Program. The Smart Approved WaterMark Program describes itself as the 'sister scheme to the WELS Water efficiency rating program' (SAWM 2015), but there is no such obvious cross referencing on the WELS Scheme website.

Perfect knowledge across all stakeholders is unlikely to be attainable, but the persistent nature of this confusion points to a lack of effective external communication by the WELS Scheme to establish the extent of their interaction, promote the complementary nature of the schemes (where relevant) and make clear statements about the specific differences in scope and administration.

Finding 42:

The persistent nature of confusion between the WELS Scheme, WaterMark Scheme, E3 Program and Smart Approved WaterMark Program is concerning and may suggest a lack of effective external communication by the WELS Scheme and related schemes.

Reporting and transparency

While there have been recent improvements made to the water rating website (in early 2015), since the WELS Scheme's establishment in 2005, there has generally been inconsistent reporting of outcomes, and delays in publishing the outcomes of recent research commissioned by the Regulator.

Financial reporting

High-level financial records of the WELS Scheme provided to the Reviewer – including inconsistent historic revenue and expenditure, and projections for future years – provided only rudimentary accounting details. Based on details provided to the Reviewer it appears that only:

- rudimentary internal records as to the financial records and outcomes of the WELS Scheme are being kept
- a small amount of this information has been released publically and there are some inconsistencies in this.

In the Reviewer's opinion, the financial records being kept are not a sound basis for future financial planning, scheme management nor external reporting. Furthermore, the inconsistent information that has been released publically (such as Cost Recovery Impact Statements and the Strategic Plan) is of limited usefulness.

While an annual report of the WELS Scheme has been provided for most years as a section in the Department's overall annual report, only limited details have been made available on the water rating website, and stakeholders have not been notified of this reporting in many cases. However, the level of use of these documents by WELS Scheme stakeholders, and the benefits that would be realised if they were improved, has not been established at this point.

Reporting of commissioned research

The Department has invested WELS Scheme funds in a large body of commissioned research and targeted studies since the establishment of the Scheme in 2005. While a large amount of this work has been released publically on the WELS Scheme website (and the recent publication of ISF 2014 and Quantum 2014 is commended by the Reviewer), key research that the Review Team has been made aware of by stakeholders remains confidential – including a key report by Deloitte Access Economics (2011): *Cost recovery options for the Water Efficiency Labelling and Standards (WELS) Scheme*. Expeditious publication of this document can only facilitate more informed discussion in connection with this Review, and act to improve the transparency of governance and reporting overall.

General reporting and transparency

In addition, questions were raised by stakeholders about the effectiveness of information dissemination to other governments, industry and consumers to inform stakeholders about the WELS Scheme, its objectives and changes made. While some stakeholders reported that this information was effective (mainly those that were members of WELSAG), a range of them noted that general dissemination of information could be improved.

It was evident to the Reviewer that much of stakeholder concern about a lack of transparency in the WELS Scheme could be traced back to the fairly limited rationales the joint government response to the 2010 Review provided for not accepting a number of important recommendations. The legacy of this concern, combined with the fact that key research commissioned by the Department has been kept confidential, has only added to stakeholder concern over the transparency of the Scheme. Transparency is important in all aspects of regulation and government, especially when industry is required to fund a public scheme.

Finding 43:

There is scope to improve the effectiveness of information dissemination to stakeholders – including on matters of finance, planning, policy and research – by improving general transparency and consistency of communication, and detail of reporting.

8.2.4 Effectiveness and equity of compliance and enforcement

Industry-wide compliance

Evidence provided to the Reviewer suggests that in general, compliance with WELS Scheme requirements is relatively high across industry; although based on discussions with the Department, the plumbing sector appears to be less compliant than the whitegoods sector. The audit program implemented by the Department, where inspectors undertake random and targeted inspections of premises across Australia,[59] appears to be effective in its efforts to maintain compliance with the labelling and advertising requirements of the Scheme.

[59] It is understood that the Department randomly targets business, but the methodology for this random auditing is unclear. Targeted inspections are primarily based on in-confidence reports made to the compliance team by entities in the industry or the general public.

In a large number of compliance actions, it appears the reasons for non-compliance have been the result of misinterpretations or basic errors on behalf of the registrant or supplier,[60] and have been resolved with minimal cost or need for serious enforcement action. In this regard, the recent introduction of civil penalties and a range of cooperative and educational compliance measures have improved the effectiveness and efficiency of compliance and enforcement compared with prior arrangements (see Section 4.1.4 and 3.4.4).

Despite this, some industry participants consulted felt that they were being actively and unfairly targeted by the Regulator. However, no evidence could be found to support this. Indeed, evidence was provided by the Department that suggested compliance activity has been undertaken nationally and across all sectors of the industry, from small retailers to the largest national retailers and online suppliers.

Finding 44:

Current compliance and enforcement arrangements appear to be effective in achieving generally high compliance across the industry.

Check testing program

While industry compliance is reported as high, there is currently no check testing program in place which actually tests products at random from the market and compares the results to the stated water efficiency – such as is the case under the E3 Program. Currently, the Department relies upon the NATA certified test results provided by the registrant to the WELS Scheme on face value. Under the current approach a registrant could potentially provide one product for testing but a different less efficient product to market for sale. This is a clear gap in the compliance and enforcement approach.

The Reviewer was provided with some anecdotal evidence that showers had been provided to market without (or with the option of not having) flow controllers; however, the extent of this practice could not be established. In either case, the WELS Scheme's compliance and enforcement activities would be more effective with a check testing program in place; in that an independent check testing regime would provide an additional incentive to manufacturers and suppliers to maintain consistently compliant products in the marketplace.

While industry and government stakeholders generally support the introduction of such a program, the initial estimate of between $500,000 and $700,000 per annum proved too high for the current WELS Scheme budget to accommodate, and therefore has not yet been implemented (see Section 3.5.2).

The WELS Scheme would not be the first to implement check testing, as the E3 Program already has a functioning check testing program. On this basis, there is the possibility that efficiencies could be gained by expanding the E3 Program's testing scope in relation to whitegoods also covered under the WELS Scheme. Although, this must be qualified with the fact that there is likely less risk that whitegoods manufacturers (compared to plumbing) would supply products to market that differ from those tested (due to the cost of producing different products), and check testing whitegoods

[60] In a small number of cases it appears the Regulator has also been at fault.

would only cover less than 6 per cent of the total number of products registered with the WELS Scheme.

Finding 45:

The introduction of a check testing program (potentially in collaboration with the E3 Program) could make the compliance and enforcement activities of the WELS Scheme more effective; however, its cost must be proportionate to risk and the potential compliance benefit gained.

Rise of direct import and commercial online sales

Of more concern to stakeholders (including the Department) was the rise of online sales and direct import of commercial quantities of products. A number of stakeholders raised serious concerns with the Reviewer about how to effectively and efficiently regulate large online purchases or direct import of WELS Scheme products from overseas by commercial entities (mainly property developers or building firms). Compared to a decade ago when the WELS Scheme was established, the line between the purchase of products online for personal use and commercial gain is becoming more blurred as the popularity of online shopping increases.

While the legal interpretation of WELS Scheme regulations as they apply to online purchases and importation of WELS products for commercial purposes is relatively clear,[61] exactly how compliance is effectively enforced in the case of direct importation of product presents a range of challenges not found in enforcing compliance of bricks and mortar retailers – including how:

- registration currency and other regulations are enforced where there is no point of sale
- businesses importing products can be identified where there are no public facing sales.

Stakeholders consulted claimed that some property developers, builders and plumbers are regularly importing products from international manufacturers which are not registered with the WELS Scheme. They argued that this is placing increased pressure on local manufacturers and retailers, giving some unscrupulous entities an unfair market advantage and leading to potentially poor water efficiency outcomes for the Australian public. While the evidence of this practice is only anecdotal, the Reviewer accepts that on the balance of probabilities it has occurred and likely will continue, although to what degree is unknown.

From evidence provided to the Reviewer by the Department it appears that, due to the budget limitations, the compliance team does not have the resources to undertake large scale and effective surveillance of direct imports and commercial international online sales. Despite this, the Reviewer

[61] Under the WELS Scheme it is illegal to 'supply' to market a water-using product that is covered under the Scheme if it is not currently registered with the Regulator. According to Section 7A of the WELS Act 2005, the term 'supply' refers to the supply of a product in the course of trading or commercial activities. Such activities include: an offer to supply; the act of selling, exchanging, gifting, leasing, loaning, hiring or hire-purchasing of a product; and supply of a product included as part of another object (e.g. a fitting or fixture). The interpretation of supply in the WELS Act 2005 gives it a much broader application beyond that of the sale of a product in store. For example, the meaning of supply applies to a property developer who imports a container of water-using products from an overseas manufacture to install in a new development in the same way as it applies to a domestic retailer selling bathroom products to the general public in a bricks and mortar or online store.

understands that the team has been recently working with eBay to improve international compliance, but efforts in this area will likely remain constrained by influences such as the:

- sheer scale and pace of change of the online marketplace
- rise of Chinese online marketplaces – such as Alibaba, which allows Australian retailers to liaise directly with thousands of manufacturers online at very low cost
- legal uncertainties about sovereign jurisdictional powers when dealing with international manufacturers
- lack of enforcement by Customs at the point of import into Australia.

The lack of an effective approach to driving compliance in relation to the direct import of non-registered products is concerning, regardless of the degree to which entities are actually circumventing the WELS Scheme. On this basis, it is important that the Regulator continue to assess options on how to more effectively manage the associated risks of this practice to the objectives of the Scheme.

Finding 46:

Currently there appears to be no compliance and enforcement approach that is able to effectively capture international direct import and commercial online sales under the WELS Scheme.

8.3 Efficiency

The Terms of Reference for the Review require that an assessment be made as to the efficiency of the WELS Scheme. This section considers:

- the cost-effectiveness of the WELS Scheme – including the direct financial administrative costs (annual expenditure, not including regulatory burden and other indirect costs) of achieving water savings (Section 8.3.1)
- the financial management and sustainability of the WELS Scheme (Section 8.3.2)
- other efficiency considerations (Section 8.3.3).

8.3.1 Cost-effectiveness of achieving objectives and outcomes

One of the objectives of the WELS Scheme is to conserve water supplies by reducing water consumption. As the extent of water savings has been independently estimated (ISF 2008 and 2014) it is possible to use this to establish and compare costs of water savings under the WELS Scheme.

Direct financial administrative cost of water savings

To assess cost-effectiveness, it is possible to calculate the direct financial administrative costs to all stakeholders (i.e. not inclusive of regulatory burden costs) and divide these costs by the estimated volume of water saved. While the Reviewer acknowledges that establishing the exact volume of water saved is complicated by uncertainties in distinguishing water savings against a background of other demand management measures, it is a useful exercise to give an indication of the approximate costs per ML and per kilolitre (kL).

While data provided to the Reviewer for historical revenue and expenditure was generally very limited, aggregate financial contributions data was provided for 2013-14 that is considered to

represent the annual costs of running the WELS Scheme. In that year, approximately $1.6 million was provided through the combined contributions from state and territory governments, the Commonwealth Government and industry.

It was estimated that approximately 70,000 ML of water was saved due to the WELS Scheme in 2013 (ISF 2014). Given this, it can be estimated that the direct financial administrative cost of water saved by the WELS Scheme in 2013 was $23.15 per ML or $0.02 per kL. However, as noted, this calculation excludes other regulatory burden costs to stakeholders (such as testing, training, education and administration associated with the Scheme for industry participants).

As outlined in Section 3.5 and 7 of this report, the direct financial administrative costs of the WELS Scheme have ranged between a lower limit of $1.44 million (2014–15) and an upper limit of $3 million per annum – however, it is unlikely that future expenditure will reach such upper limits. If it is assumed that expenditure will not exceed an upper limit of $1.96 million per annum (the approved budget of the Scheme) between 2015 and 2020 , and if water savings estimates produced by the ISF hold, each ML of water saved during this period will come at a cost of approximately $18.70 per ML or $0.02 per kL on average (Table 10).

Table 10. Estimated direct financial administrative cost per ML and kL of water saved under the WELS Scheme

Year	Estimated WELS Scheme expenditure[1]	Estimated water saving (ML)[2]	Estimated direct financial cost per ML	Estimated direct financial cost per kL
2015	$1,960,000	89,250	$21.96	$0.02
2016	$2,009,000	98,875	$20.32	$0.02
2017	$2,059,225	108,500	$18.98	$0.02
2018	$2,110,706	118,125	$17.87	$0.02
2019	$2,163,473	127,750	$16.94	$0.02
2020	$2,217,560	137,375	$16.14	$0.02

Source: Aither, adapted from Department of the Environment direct cost estimates and ISF (2014) estimates of water savings under the WELS Scheme.
Notes: 1) Costs are real and have been indexed by 2.5 per cent per annum to reflect average inflation. Costs only include WELS Scheme expenditure (e.g. costs associated with regulatory burden are not included) and the starting year (2015) is calculated based on the approved budget of the Scheme. 2) Based on water saving calculations presented in ISF 2008.

Comparisons with other sources of urban water supply

The long-run marginal cost (LRMC) of an additional unit of water supply is often calculated and used to compare the economic cost of different sources of water supply. LRMC represents the cost of augmenting water supply to cater for additional demand. As a result, it is useful in the context of the WELS Scheme, as the savings it has delivered may have otherwise had to be met by additional sources of supply.

In a 2008 study the WELS Scheme was generating an estimated water savings at a LRMC of between $0.08 and $0.21 per kL (ISF 2008). When compared to the LRMC of different water supply options, which are

commonly between $0.50 and $2 per kL,[62] water savings achieved by the Scheme appear to be highly competitive. While LRMC is dependent on both the point in time it is determined, and geographic location, in general the LRMC of surface water supply options from traditional (dam fed) water storages is over $1 per kL. The study estimated that the LRMC of desalination ranged from $1.19 to $2.55 per kL, with other source substitution options such as water recycling generally being much more expensive (ISF 2008). Using these and other sources, a comparison of WELS Scheme cost of water saved to other supply and demand options can be made (Table 11).

Table 11. Comparison of WELS Scheme cost of water saved to other supply and demand options

Option	Direct cost per kL of water Lower estimate	Direct cost per kL of water Upper estimate
WELS Scheme[1]	$0.08	$0.21
Demand management	$0.00	$1.45
Dams and surface water	$0.15	$3.00
Groundwater	$0.20	$1.58
Purchase of irrigation water	$0.63	$1.30
Rainwater tanks	$3.00	$5.60
Desalination	$1.15	$3.00

Source: Aither and MJA 2006.
Note: 1) It should be noted that the administrative cost of water saved in the WELS Scheme was calculated as $0.02 per kL (Table 10), but the ISF (2008) estimate of LRMC (between $0.08 and $0.21 per kL) is used here as it is more directly comparable with the calculation of direct cost for these other measures.

Finding 47:

The WELS Scheme is cost-effective and achieves water saving outcomes at significantly lower cost than supply augmentation measures.

Based on the above comparisons, given how much lower the cost of the WELS Scheme is than other supply measures, it is likely that savings achieved under the Scheme represent excellent value for money.

8.3.2 Financial management and sustainability

The direct financial costs of achieving WELS Scheme objectives (comprising but not limited to water savings) is directly influenced by the Scheme's annual budget – including decisions about the scope and level of cost of tasks or activities that occur under its management.

WELS Scheme budget and financial management matters

While only limited financial information has been provided to the Review, a rough breakdown of the WELS Scheme expenditures was provided (as shown in Table 4), which indicated key expenditure items including:

- registration

[62] ISF 2008 estimated it to be between $1 and $3 per kL at the time. In 2004 LRMC was estimated to be $1.40 per kL in Canberra (ACTEW Corporation 2007).

- policy development
- compliance and enforcement
- WELSAG administration
- communications
- third-party suppliers and services.

Given no historical breakdown of expenditures was provided, the Reviewer could not make any judgements about the efficiency of costs incurred for these items over time. While the elements of expenditure are broadly consistent with those that would be expected for administration and operation of the WELS Scheme, it appears inconsistent with Australian Government Guidelines to fund policy development through the ongoing operation of the Scheme (see cost-recovery guidelines – Australian Government 2014b)

As discussed in Section 3.5.2 the Reviewer understands the WELS Scheme is now running at a reduced budget level, lower than that planned for in the 2011 Strategic Plan (approximately $1.4 million rather than $1.96 million per annum). This is reflected in reduced expenditure in the above mentioned areas, including nearly 50 per cent reductions in registration, and compliance and enforcement, 10 per cent in policy development, and costs reduced to $0 for WELSAG administration and communications (between that planned for 2014–15 and expected in 2014–15).

Cost reductions noted above may be seen as positive steps towards reducing the overall cost-base of the WELS Scheme (and part of the regulatory burden). They should be supported provided savings are derived from genuine efficiencies or avoidance of non-critical tasks that do not compromise the achievement of Scheme objectives.

Efficient allocation of funds within the WELS Scheme

While Section 8.1.4 and Finding 21 suggest that the total direct financial cost of the WELS Scheme appears to be appropriate given its national coverage and benefits achieved, there may still be questions regarding the efficient allocation and investment of funds. For example, policy development remains at an expected 27.5 per cent of total expenditure in 2014–15, but no budget has been allocated to communications. In addition, over 20 per cent of the budget is expected to be spent on third-party suppliers and services, but there is limited transparency on how this will be spent and improvements this could bring to the efficient operation of the WELS Scheme and achievement of its objectives. The Scheme has the benefit of maintaining high visibility through being a mandatory scheme with point of sale material required to be displayed. Nevertheless, there is a case for additional stakeholder and consumer promotion to overcome issues of confusion (Section 5), or to maximise scheme acceptance and use.

Financial sustainability

As outlined in Section 3.5.3 the revenue shortfall or surplus has varied dramatically over time. This has had impacts on the contributions of different parties, which have also varied substantially from 2012–13 to 2014–15. While influenced by a number of factors, including major administrative and operational changes, it highlights the challenge of ensuring the ongoing financial stability and sustainability of the WELS Scheme.

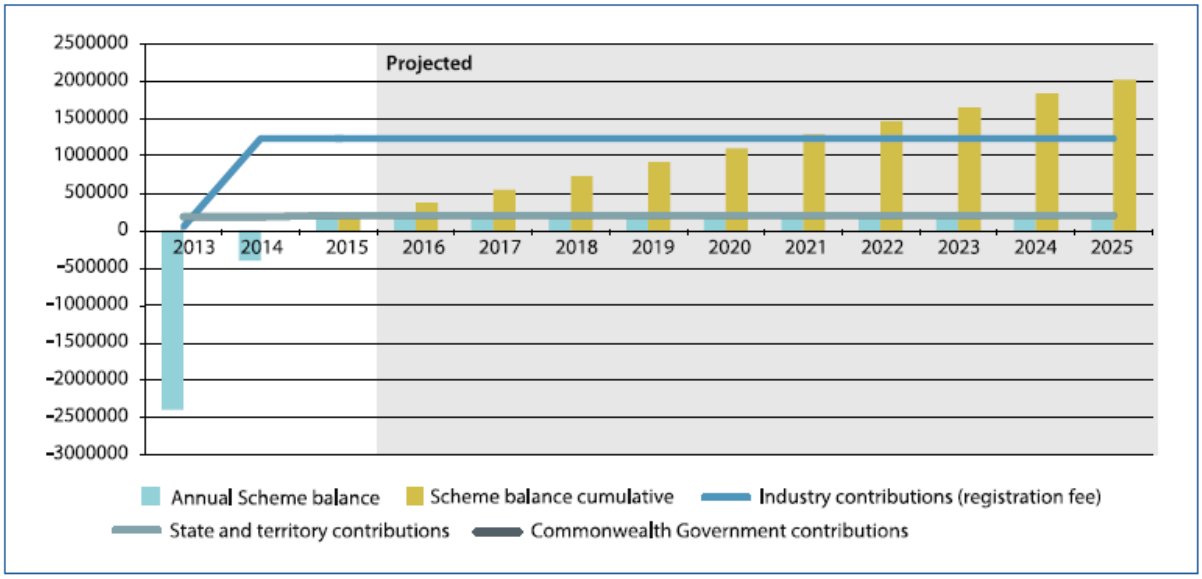
Recent financial outcomes (as discussed in Section 3.5) point to a plateauing of required expenditures, consolidation of the numbers of products registered and potentially the achievement of some level of revenue consistency. In the 2014–15 financial year, the WELS Scheme is expected to deliver a surplus of $184,000, the first time that it has not delivered a deficit based on financial records provided to the Reviewer.

To contribute to an assessment of the financial sustainability of the WELS Scheme into future years, the Review Team developed a simple revenue-expenditure forecast model which includes variables for:

- expenditure
- numbers of registered products over future years and product turnover
- contributions from governments
- registration fees (per product per year).
    - From the above elements, it is possible to set expenditure levels and product numbers, estimate the registration fee levels required, and the financial balance of the Scheme over time. Under the scenario tested here, current policy settings are assumed, which include:
- expenditure remaining constant at the current $1.44 million expected per annum
- state and territory contributions being fixed at $196,000 per annum, and the Commonwealth Government matching this contribution, on the basis of current agreements (10 per cent each of the approved $1.96 million per annum budget, not the actual $1.44 million)
- no changes to current registration fees
- numbers of registered products remaining the same as those known for 2015
- only 75 per cent of products registered with the WELS Scheme are fee paying (due to sets of minor products – see Box 2).

While there is a fairly high degree of uncertainty that product registration numbers will remain at current levels, under this scenario (Figure 23) the WELS Scheme is estimated to deliver a surplus of approximately $185,000 per annum, and registration fees charged to registrants are estimated to cover approximately 86 per cent of expenditure. By 2025, it is estimated that over $2 million would have accrued to the WELS Scheme special account.

Figure 23. WELS scheme financial sustainability – business as usual



Source: Aither, based on information provided by the Department of the Environment.
Note: See Appendix I for a list of all assumptions made.

While this scenario delivers a result that secures the financial sustainability of the WELS Scheme, such an outcome does not align with the cost-recovery policy target of 80:20 (private vs public) funding, because industry will consistently pay more than 80 per cent over future years. The WELS Scheme is also not intended to generate surplus revenue – in principle it should be operating at least cost required to deliver on its objectives, with cost-recovery measures set to ensure it breaks even. While the accrual of surpluses could be reinvested and potentially deliver benefits to stakeholders, investments in any improvements to the Scheme would best be determined upfront as part of budget determination processes in agreement with stakeholders, before registration fees and government contributions are set to recover funding for this.

On this basis it could be suggested that all other things being equal, registration fees could be reduced in order for the WELS Scheme to break even in future years.

Finding 48:

Based on continuation of current operating arrangements, the WELS Scheme is expected to remain financially sustainable into the future, but will likely over recover from industry, which is inconsistent with the 80:20 cost-recovery target and the principle of revenue neutrality.

8.3.3 Other efficiency considerations

Avoided duplication and scheme interactions

- As noted previously, delivery of the WELS Scheme though national level administration allows states and territories to avoid duplication and therefore improves its overall cost-effectiveness (see Section 6.2.2). In this respect, the Scheme delivers efficiencies that align with the Australian Government's policy objective to reduce duplication between different levels of government (Australian Government 2015f). However, as outlined in Section 8.1 and 8.2, there may still be opportunities to further reduce the overall cost-base of the Scheme. If this was reduced without

impacting on objectives, the Scheme would be even more efficient. Measures that may be able to reduce this cost-base are discussed further in Section 9.4.

- As discussed in Section 8.2.3, notwithstanding formal links that have been established with the WaterMark Scheme (which actually costs registrants more that it benefits), there appears to be little evidence of any efficiencies gained from interactions with other schemes and programs to date (e.g. joint check testing with E3 Program would be an opportunity to reduce cost while improving outcomes – see Section 8.2.4). While the Regulator has indicated willingness to pursue such opportunities, meaningful interaction requires capability and willingness on the part of the administrators of the Watermark Scheme, E3 Program and Smart Approved WaterMark Program, which may not be present.

Innovation

Innovation can lead to efficiency gains, as new ways are found to improve processes or products that mean doing the same things for lower cost. Both the standards and water star ratings employed by the WELS Scheme can be argued to have led to innovations that have reduced costs.

As articulated in Section 8.2.1, a much greater proportion of products are being produced and sold with high levels of water efficiency than was previously the case. As more manufacturers compete in this higher performance sector of the market, costs may be driven down and greater water efficiency is available for lower cost. This is likely to contribute to achievement of WELS Scheme objectives, as a greater proportion of society has access to more water efficient products.

Evidence provided to the Reviewer suggests that a rating scheme provides the optimum market based approach for offering consumer choice and the potential for innovation. Stakeholders generally indicated that the WELS Scheme had incentivised manufacturers to provide more efficient and innovative products to market, to meet consumer demand and exploit potential marketing benefits. Innovation in whitegoods also appeared to be directly linked to energy efficiency and the E3 Program, because of corresponding trade-offs between water and energy efficiency in these products (e.g. a more energy efficient clothes washing machine is normally less water efficient and vice versa).

8.4 Summary

Based on the above assessment, the Reviewer has formed the view that the current administration and operation of the WELS Scheme:

- is broadly appropriate; however, likely improvements can be made to
  - the cost-recovery split recognising the distribution of benefits from the Scheme
  - removing aspects of the regulatory burden imposed by the Scheme.
- has been effective in delivering on the three primary objectives; but the Scheme would be more effective if modifications could be made to
  - improve stakeholder engagement mechanisms
  - clear up confusion around linkages between the WELS Scheme and other schemes
  - improve the effectiveness of current compliance and enforcement arrangements – including in relation to the direct importation of non-registered products
  - improve transparency and reporting.

- is broadly efficient given it is highly cost-effective in delivering on its key objective of water savings, and has delivered other efficiency gains from innovation and avoidance of duplication, but may require modifications to ensure
  - fees and contributions reflect agreed cost-recovery arrangements and the principle of revenue neutrality
  - efficient distribution of funding and investment within the WELS Scheme.

In broad terms the WELS Scheme is appropriate, effective and efficient. However, some challenges and opportunities for improvement have been identified in each of these areas, and these need to be addressed to ensure future benefits are secured at the least overall cost.

On this basis, it is important to consider a number of potential modifications to the WELS Scheme. Possible changes are further explored in a discussion of future options for the Scheme in the following section.

9 Options

Based on the assessment presented in the previous section and a number of other considerations, the Review developed, considered and assessed four separate options for the future of the WELS Scheme:

- Option 1 – cessation of the WELS Scheme
- Option 2 – continuation of the WELS Scheme without major modification
- Option 3 – transfer of the WELS Scheme responsibilities for relevant products to both the WaterMark Scheme and E3 Program
- Option 4 – continuation of the WELS Scheme with modification.

An assessment of these four options follows.

9.1 Option 1 – Cessation of the WELS Scheme

A small number of stakeholders consulted (primarily plumbing sector retailers) called for the WELS Scheme to be wound up completely. In making a full assessment of the Scheme's future, consideration of having no WELS Scheme is valid to explore, including to test the feasibility of implementing some stakeholder preferences, but also to ensure a sound understanding of the implications of going down this path.

9.1.1 Description of Option 1

Under this option, the WELS Scheme would cease to exist at the conclusion of the 2015-16 registration year (22 January 2016), or another end date found to be more appropriate.[63] Cessation of the Scheme would conclude all current administrative responsibilities of the Department effective 22 January 2016 (beyond those necessary to wrap up the Scheme). Duties of Department staff would conclude, and staff would either need to be transferred internally to other teams, externally to other Commonwealth departments or be made redundant.

Cessation of the WELS Scheme would require the repeal of the WELS Act 2005 and associated Commonwealth Government legislation. It would also require legislative change in all states and territories. The WELS Standard AS/NZS6400:2005 would become redundant, but would not necessarily need to be retracted. Resulting from the repeal of relevant legislation, all requirements on industry would cease – such as no requirement:

- for designated products to be registered with the WELS Scheme – including no obligation to test products based on AS/NZS6400:2005 nor liability for the payment of registration fees
- to provide water efficiency labels on relevant water-using products

[63] Cessation at the end of a registration year would avoid the complication of paying pro-rata refunds for registration fees paid by registrants. However, cessation of the WELS Scheme at any point poses risks associated with compensation claims against the WELS Regulator, such as for costs incurred in testing for products in development or other costs borne by stakeholders.

- for product suppliers to check the registration of products sold, or ensure acceptable labelling in store or online.

Under such a scenario, manufacturers, plumbers, property developers and others would still be required to comply with legal obligations under the WaterMark Scheme and E3 Program where applicable (which are beyond the jurisdiction of the WELS Scheme), and other minimum performance standards where they exist (such as in the National Construction Code or state based building codes).

This option does not assume a replacement of the WELS Scheme with a state or industry led scheme(s) (voluntary or mandatory), although such schemes could potentially develop in its place over time. Under this scenario, consumers would be unlikely to continue receiving water-efficiency information at point of sale about products currently covered by the Scheme, unless particular manufacturers and product suppliers decided to voluntarily provide this information, new industry schemes arose, or states and territories imposed new requirements at the jurisdictional level.

9.1.2 Assessment of Option 1

Stakeholder views

As noted in previous sections of this report, the consultation process revealed overwhelming support for the WELS Scheme's continued existence, based on almost universal endorsement by stakeholders of its objectives (see Section 8.1.1 and Finding 18). While some industry stakeholders suggested the Scheme was not perfect, the majority accepted that the Scheme had underlying value and should continue to exist.

Only two or three stakeholders called for the total cessation of the WELS Scheme, and generally these views appeared to be biased by negative or confrontational individual experiences with the Scheme or Regulator (such as adverse compliance actions). The arguments of these stakeholders were primarily based around their assertion that the current costs of the Scheme (at least to them) outweighed the benefits. To the contrary, assessment of the Scheme in Section 8 of this report found that the benefits are large (Section 6) and the total financial costs are relatively small (Section 7 and Finding 21).

In addition, none of the various reports commissioned about the WELS Scheme since its establishment, nor the 2010 Review, questioned the objectives of the Scheme or the value that it delivers, and none have provided any compelling evidence that would suggest its cessation should be seriously considered.

Costs and benefits

While cessation of the WELS Scheme would eliminate all direct and indirect costs for affected businesses, many of these costs are passed on to consumers who derive benefit from and value the information provided (Finding 14 and 17).

Some current benefits would likely survive cessation of the WELS Scheme – including the water savings benefits provided by more efficient products already installed. However, with no Scheme in place over the longer-term, these benefits are unlikely to continue as many products already installed would eventually be replaced, potentially with less water efficient ones. This would also have flow on effects to projected abatement of greenhouse gas emissions (Finding 9), and reductions in estimated consumer financial or information benefits (Finding 7). Significant reductions in projected water savings under the WELS Scheme is also likely to have consequences for utilities and

governments that are relying on these savings to more efficiently manage existing sources of supply, or defer costly major investments in supply infrastructure or network upgrades (Finding 3).

Policy and legislative matters, and scheme interactions

Ultimately, cessation of the WELS Scheme would also leave a major policy gap in Australia's water resource management armoury, reducing state and territory governments' ability to manage water resources in current and future times of scarcity.

Cessation of the WELS Scheme would mean the loss of a key point of reference for various other schemes and programs across Australia and internationally, as well as in parts of the private sector (Section 6.2.2). The loss of this point of reference would likely have consequential impacts that would either increase net costs in the economy (e.g. multiple Australian states developing their own individual schemes) or reduce benefits to other indirect stakeholders (e.g. termination of a rebate program, or removal of a reference in building code or procurement policy).

Efficacy of potential alternatives

In the absence of the WELS Scheme, it is both unlikely that an industry led scheme would eventuate or that it would be an effective substitute. The Scheme covers two rather discrete product sectors (whitegoods and plumbing products) and involves different participants in the supply chain (importers, manufacturers, and suppliers and retailers). Outside of the Scheme, there is no natural industry body that adequately covers these multiple sectors or types of industry participants. Consequently, in would be challenging for industry to devote the resources and energy required to both agree on and implement a model and governance approach capable of delivering outcomes in the way the Scheme currently does.

An industry scheme would likely be voluntary, which would likely mean lower participation, and it being less effective at various levels (e.g. product coverage, and extent, quality or accuracy of information provided). In addition, the evolution of past water efficiency schemes suggests voluntary and industry based schemes were ineffective (see Section 2.3.3), and this is in part the reason the WELS Scheme is in place today.

It is possible, that in the absence of the WELS Scheme state or territory governments would develop their own jurisdiction-based schemes that could potentially perform to a similar level. If they did this, it would likely come at higher total costs (given duplication in systems between states), and issues with mutual recognition across state borders, and other regulatory issues and complexities would be expected.

It would also be more costly to consumers given confusion about or between systems. It would fragment a consistent national market into state based markets, adding cost and complexity to both existing and new market participants. Costs to industry would increase given different regulatory requirements in states and territories, with potentially different or duplicated testing requirements, and registration processes or fees. Even in the event schemes were mutually recognised, there would still be many forms of duplication, including in systems, administration and resourcing within separate government agencies. This situation would be a suboptimal outcome for industry, consumers and Australian society more generally, and be a poor use of Australia's federal system of government.

Summary of Option 1 assessment
Based on the above assessment, cessation of the WELS Scheme does not represent an appropriate course of action. This would compromise important existing and projected future benefits and:

- be a poor public policy outcome for Australian consumers and broader society
- represent a retrograde step that would potentially increase cost and complexity to all stakeholders
- reduce consumers' ability to make more informed decisions.

Finding 49:

Cessation of the WELS Scheme is not an appropriate course of action – it does not have the support of stakeholders, would compromise important benefits and potentially create duplicative and more costly future arrangements.

9.2 Option 2 – Continuation of the WELS Scheme without major modification

Given it is not an appropriate course of action to end the WELS Scheme, a logical option to consider next is to continue the Scheme without major modifications.

9.2.1 Description of Option 2

Option 2 proposes no fundamental administrative modifications or changes to the current WELS Scheme (therefore it remains largely as described in Section 3), and an assumption that the ongoing budget is expected to remain at $1.44 million, rather than the approved $1.96 million. However, it does include the following (relatively) minor changes:

- Cost-recovery aligns with the policy target of 80 per cent from industry and 20 per cent from government – which would require a reduction in both industry (registration fees) and government contributions (refer to the scenario presented in the efficiency assessment section, 8.3).
- A check testing program, as described in Section 8.2.4, is not introduced based on cost considerations (this had been planned as part of the 2011 Strategic Plan).
- No further large investments are made by the Regulator (such as additional database and systems upgrades etc.).

9.2.2 Assessment of Option 2

Stakeholder views
The Reviewer tested this option with a number of industry stakeholders and with little exception they did not accept the premise that no beneficial modifications could be made to the WELS Scheme, even if minor. While stakeholders welcomed the potential cost reductions that this option could deliver, there were a number of other modifications (not necessarily with direct financial cost reductions) that industry would like to see undertaken as a greater priority – mainly regarding reductions in regulatory burden.

Despite calls from industry for these modifications (additional to that proposed in this option), some consultations revealed that there is a level of reform fatigue in both government and across industry

due to the large amount of changes to the WELS Scheme since the 2010 Review – especially since 2013 (see Section 4). On this basis, the appetite for large scale reform leading out of this Review may be limited.

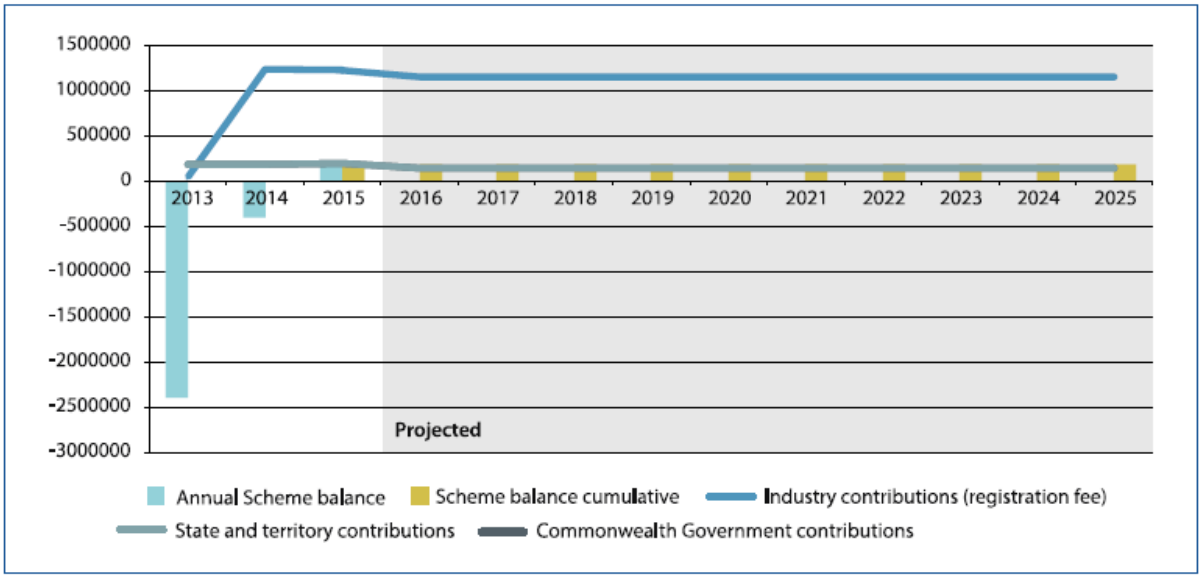
Costs and benefits

The assessment of the WELS Scheme in Section 8 found that continuation without modification (business as usual) would likely result in the ongoing delivery of a number of important benefits – such as water savings, ensuring information is available to consumers, improving the baseline level of efficiency of products available in the market, delivering financial benefits to consumers, and broader environmental benefits such as avoided greenhouse gas emissions. However, modelling of the financial sustainability of this business as usual scenario (including no change to the current registration fees levied on industry or the level of government funding) found that while the WELS Scheme could be expected to be relatively financially sustainable over the coming decade (Section 8.3.2), it could be expected to generate a surplus of approximately $185,000 per annum. Being aimed at revenue neutrality, generating expected surpluses of such magnitude is not an ideal situation.

To assess the financial sustainability of the WELS Scheme over future years if changes were made to registration fees and government contributions to meet the 80:20 cost-recovery policy target (i.e. not achieving any surpluses), the Review Team adapted the revenue-expenditure forecast model used in Section 8.3.2. As noted in Section 8.3.2, the model can take a given level of expenditure and assumed numbers of registered products, and return values for the required contributions from industry and government – including the estimated revenue per product per year required from registration fees. From this, it can provide an estimated financial balance of the WELS Scheme over time.

Under a scenario where registration fees and government contributions are modified to meet the 80:20 cost-recovery targets, the WELS Scheme can be expected to break even, total costs to industry remain at $1.15 million per annum, state and territory government contributions fall to approximately $145,000, and ongoing Commonwealth Government contributions also approximately $145,000 (Figure 24). With these changes, the Scheme would be sustainable into the foreseeable future, and relative to the business as usual scenario (Figure 23), would deliver financial cost savings.

Figure 24. Scenario 1 – meeting cost-recovery policy target



Source: Aither, based on information provided by the Department of the Environment.
Note: See Appendix I for a full list of assumptions.

In addition to assessing the total financial costs, an assessment can be made based on the required registration fee per product per annum. Under a business as usual scenario (with no modification to fees, see Section 8.3.2), the revenue from each product (the average per product fee) remains steady at approximately $81 per product per annum. However, this actually leads to over recovery of the Scheme's cost.

While consultations revealed that registrants are generally comfortable with current registration fees, based on current levels of product registrations (those in the WELS Scheme Product Database), the fee recovered is not consistent with the 80:20 split. In order to test the practicality of achieving the 80:20 target, it is important to test where in comparison to the current fees the per product per annum fee might be set. This is because based on a fixed annual cost (80 per cent of Scheme costs needing to be recovered from industry), relatively more or less products registered per annum will alter the fees required on a per product basis.

To assess the impact of this option (reducing registration fees and government contributions to meet the 80:20 cost-recovery target) on the potential registration fees required, the Review Team analysed three sensitivities related to assumptions about the number of products registered with the Scheme. The three logical assumptions about how many products might be registered in the future are:

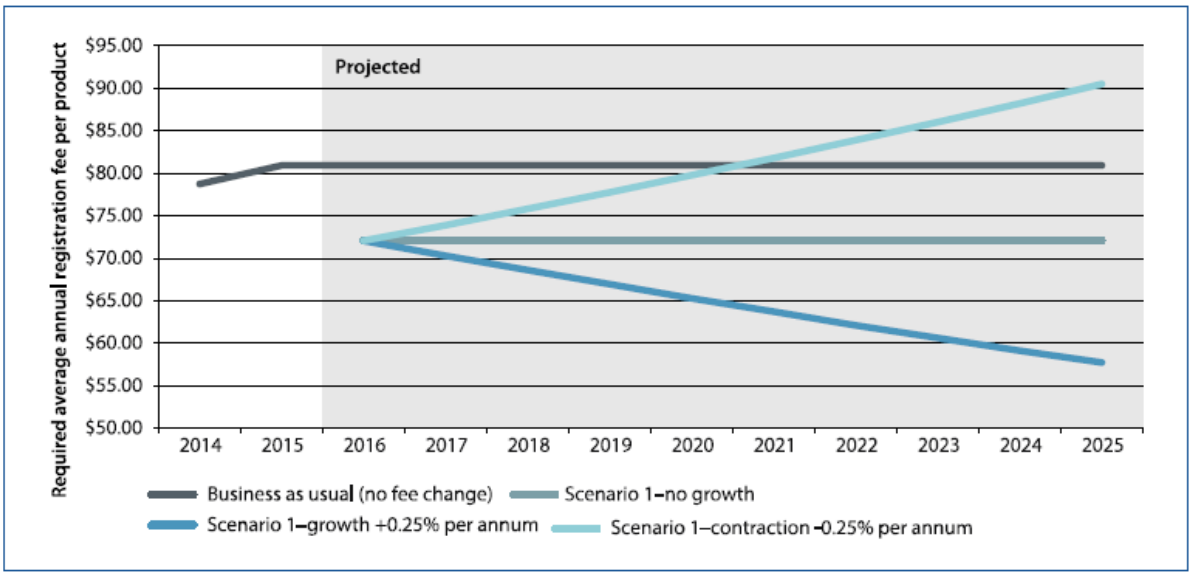
- no growth in total product numbers
- growth in total products (+0.25 per cent per annum)
- contraction in total products (-0.25 per cent per annum).

The results of this sensitivity analysis are presented in Figure 25.

If no growth is assumed, per product per annum registration fees remain steady at approximately $72 – a reduction of the business as usual scenario because total costs to industry are reduced.

Under a growth scenario, per product per annum registration cost drops to approximately $58 due to an increase in the total amount of products paying fees per annum. Under a contraction scenario, per product per annum registration cost increases to approximately $91 due to a decrease in the total amount of products paying fees per annum.

Figure 25. Registration fees required under Scenario 1 sensitivities (no growth, growth and contraction)



Source: Aither, based on information provided by the Department of the Environment.
Note: See Appendix I for a list of all assumptions made.

Stakeholder consultation indicated that it is unlikely that any of the sensitives presented in Figure 25 would lead to unacceptable per annum registration costs from industry's perspective or lead to manufacturers being excluded from the market because they were unable to pay the fees – even at the high point of $91 per product per annum.

Based on historical WELS Scheme data that the Reviewer has had access to (Figure 13), it appears that the total amount of products registered with the Scheme will contract in coming years. Assuming that this eventuates, a situation that lands somewhere between the no growth and contraction sensitivities modelled in Figure 25 is most likely to occur. This would deliver an outcome where registration fee costs to industry could be reduced and per product per annum fees would also be less (at least in the short-term).

While this option has the potential to deliver financial cost savings to both industry and government, it does not address the indirect costs associated with regulatory burden imposed by the WELS Scheme (see Section 7 and 8.1.5). As found in the assessment of the appropriateness of regulatory burden imposed by the Scheme, there are indirect regulatory burden costs imposed on product suppliers which in some cases may be significant, and there are opportunities to reduce this burden (Finding 27 and 29). If the Scheme continues without addressing these opportunities (as is proposed under this option), an important opportunity for improvement will be missed.

Summary
Despite realising financial cost reductions, continuing administration and operation of the WELS Scheme without major modification would ultimately ignore concerns raised by stakeholders and not

grasp the opportunities to make improvements possible. Accordingly, this option is not considered an appropriate course of action.

Finding 50:

Continuing with the current WELS Scheme and only making changes to financial contributions to meet the 80:20 cost-recovery target would fail to address a range of material concerns about, or opportunities to improve, other aspects of the Scheme.

9.3 Option 3 – Transfer of WELS Scheme responsibilities to both the WaterMark Scheme and E3 Program

As highlighted in Section 4.2, the potential for different forms of mergers between the WELS Scheme with other related scheme(s) has previously been raised – including as a recommendation in the 2010 Review.

During consultation for this Review, the potential of similar mergers and transfers of administrative duties between the related schemes described in Section 5 were raised again. Since the 2010 Review and over the course of this Review, suggestions for different models of mergers have included:

- The WELS Scheme and the E3 Program, where responsibility for water efficiency for whitegoods (dish washing machines and clothes washing machines) would be transferred to the E3 Program, but other WELS Scheme products (plumbing products) would no longer be covered (i.e. no water efficiency requirements).
- The WELS Scheme and WaterMark Scheme, where responsibility for water efficiency for plumbing products covered under the WELS Scheme would be transferred to the WaterMark Scheme, but other WELS Scheme products (whitegoods) would no longer be covered (i.e. no water efficiency requirements).
- The WELS Scheme, WaterMark Scheme and E3 Program, where the back of house administration of the WELS Scheme would cease to exist in its current form and responsibility for relevant products would be distributed between the other schemes (plumbing products to the WaterMark Scheme and whitegoods to the E3 Program).

The option most frequently raised by stakeholders during the course of this review is to transfer responsibility of products covered under the current WELS Scheme to both the WaterMark Scheme and E3 Program respectively (as per the last model presented above). As a result, that is the option described and assessed in most detail in this section.

Despite support for this option from several major stakeholders, the specific mechanics of merger options such as these have not yet been well defined. In consultation for this Review, proponents of these options did not provide any specific details of how to merge the various schemes – in particular how the WaterMark Scheme could incorporate and deliver on the key elements of the WELS Scheme.

‘Partial’ merger options that involve reducing the WELS product coverage (such as the first two models described above) were not further considered here because:

- Losing coverage of plumbing related products would severely compromise projected future water savings (potentially up to 80 per cent (ISF 2014)) and therefore the expected benefits of the WELS Scheme (see Finding 31).
- Similarly, losing coverage of dish washing machines and clothes washing machines could compromise over 20 per cent of projected future water savings (ISF 2014), reduce the overall visibility of the WELS Scheme at point of sale and ultimately risk backsliding on the Scheme's achievements (Finding 32).
- The WELS Scheme is unlikely to be sustainable in isolation given a substantially reduced level of product coverage, such as where only whitegoods or only plumbing products remained under it. This would impact on the financial sustainability of the remaining Scheme, and would lead to a loss of critical mass.
- If only a portion of products were merged with another related scheme, the realisation of any potential benefits could be outweighed by the requirement to continue maintaining a separate WELS Scheme registration, administration and enforcement process, and resources for a potentially small remaining pool of products.

Finding 51:

A partial merger of the WELS Scheme with one of the other related schemes (whereby some products continued to be covered but others were no longer subject to the Scheme or similar regulation) is not an appropriate course of action, given the likely loss of benefits, the risk to the sustainability of the Scheme and the poor prospects of achieving a reduction in net costs.

9.3.1 Description of Option 3

Under the option assessed here, the objectives and intent of the WELS Scheme are retained, as is the coverage of product types; however, administration of the Scheme would be merged with the WaterMark Scheme and E3 Program respectively. This essentially means transferring responsibility for administration of certain products to one scheme or the other, while still requiring that those products meet current WELS Scheme requirements for water efficiency and labelling (i.e. the public facing WELS Scheme would still exist).

The conceptual rationale for this approach is that it (arguably) more closely aligns regulatory activities on the basis of product type, which helps improve alignment in the manufacturing, retailing, distribution or use of different product types. For example, WELS Scheme whitegoods are moved to the E3 Program where other whitegoods and similar products are regulated for energy requirements, and WELS Scheme plumbing products are moved to the WaterMark Scheme, which regulates various other plumbing products to ensure they are fit for purpose.

This option would involve transferring responsibility for government administrative responsibilities but retaining the WELS Scheme's current objectives, spread across two separate existing schemes. It would remove any responsibility for current administration of the WELS Scheme from the Department of the Environment.

Further details of this option include:

- The current WELS Scheme water-efficiency label is retained as a requirement at point of sale.

- Government administration of the WELS Scheme is merged with the administration of the E3 Program, and other functions are transferred from the Department of the Environment to the Department of Industry and Science, which assumes responsibility for the administration of policy, product expansion, legislation and standards of the Scheme.
- The E3 Program also takes responsibility for registration, compliance and communications in relation to whitegoods (clothes washing machines and dish washing machines).
- The responsibility for the registration, compliance and communications of plumbing products currently under the WELS Scheme (showers, tap equipment, toilet equipment, urinal equipment and flow controllers) is transferred to the entity that is responsible for WaterMark Certification (notionally the ABCB, depending on the outcomes of the 2015 review of the WaterMark Scheme). No legislative or policy responsibilities are transferred to the WaterMark Scheme – these are accommodated with the E3 Program.
- Registrants would still need to have their relevant products tested, and to register and label them, but would do so through alternative administrative arrangements. Legal requirements for product suppliers would remain unchanged.
- Regulatory (and possibly legislative) changes would likely be required, but these may focus on shifting the administrative responsibilities and processes rather than changing the underlying fundamentals, such as WELS Scheme objectives.

9.3.2 Assessment of Option 3

Stakeholder views

During this Review, the Plumbing Products Industry Group (PPIG) expressed the view that merging the WELS Scheme with the WaterMark Scheme will likely 'reduce cost and eliminate duplication, confusion, red tape and regulation' (PPIG 2015), and consequently reduce the burden on business and industry. However, while the general benefits of such a merger have been articulated, they have not been quantified in any reliable sense. Significantly, the risks to the current effectiveness of the WELS Scheme were not discussed, and the costs of delivering a merger have not been discussed by proponents (beyond indicating that broad legislative changes will be needed to enable a merger).

When testing this option with a number of other industry stakeholders, including with WELSAG, they were generally supportive of the concept if it was able to deliver tangible efficiencies or cost reductions. Whitegoods manufacturers noted that they were comfortable working with the E3 Program, and if they were able to meet their water efficiency responsibilities through the Program at the same time at less cost, they would be broadly happy with this situation. Similarly, plumbing product manufacturers suggested that they were comfortable working with CABs to meet the WaterMark Scheme's requirements, and if they were able to meet their water efficiency responsibilities through the same interaction with CABs then they would be broadly supportive.

However, despite general in-principle support, no stakeholder could fully articulate how such a merger would work in reality, the costs of such a merger or the benefits that it would likely bring. There appeared to be strong in-principle support, but a gap was evident between this support and a robust justification for why such a merger would be an improvement on current arrangements. A justification that in the Reviewer's view no stakeholder was able to adequately make.

Apprehensions about transferring a portion of responsibilities of the WELS Scheme to the WaterMark Scheme were also raised by stakeholders. These included the ability of, or motivations for, the ABCB (or future administrator of the WaterMark Scheme) to adequately resource and provide the necessary technical expertise required to administer a national mandatory consumer advisory scheme. If concerns are real, such an outcome would present an unacceptably high risk of compromising the integrity and effectiveness of the WELS Scheme.

In addition, several stakeholders consulted for this Review expressed concern that because of the ongoing review of the WaterMark Scheme and its current state of flux, any firm conclusions about the feasibility of transferring responsibilities at this time would be inappropriate.

While a transfer of responsibilities (or similar merger models) has been previously supported by the Standing Committee on Environment and Heritage's 2007 report on regulating plumbing product quality (SCEH 2007), by the 2010 Review and the plumbing industry, few have fully acknowledged the complexity of doing so. However, the 2014 WaterMark Review Consultation Draft published by the ABCB does openly voice concerns about the complexity of such a merger (GWA 2014).

Alignment of the WELS Scheme and WaterMark Scheme

As noted previously (Section 5.1), the WaterMark Scheme is a mandatory certification scheme for plumbing and drainage materials and products in Australia to ensure that they are fit for purpose and appropriately authorised for use in plumbing installations. There are a number of fundamental differences in the design, purpose and approach of the WELS Scheme and the WaterMark Scheme, that make a transfer of responsibilities between the two schemes challenging – including the following:

- Different legislative underpinnings and administrative bases referred to in Section 5.1 and Appendix G – including that the WaterMark Scheme has no legislative underpinning and is not technically administered by a Commonwealth Government department.
- The WELS Scheme is focussed on water efficiency while the WaterMark Scheme regulates public health and safety, and product integrity.
- The WELS Scheme is targeted at consumers whereas the WaterMark Scheme targets the building and construction sector in particular.
- The WaterMark Scheme covers all plumbing products and drainage materials whereas the WELS Scheme regulates only a small subset of these products.
- The WaterMark Scheme is not a rating or advisory scheme. Rather, it sets a minimum standard with products either being certified or not (i.e. pass or fail). In contrast, the WELS Scheme offers consumers choice in selecting a preferred level of water efficiency in their products.
- The WaterMark Scheme is enforced at point of installation by relevant state and territory regulatory bodies (such as state based building authorities – e.g. Victorian Building Authority), whereas the WELS Scheme is at point of sale and enforced by Commonwealth Government compliance officers.
- WaterMark Licences are effectively lifetime from the manufacturers' viewpoint (although it is understood they are renewed annually on behalf of manufacturers by CABs), unlike the WELS Scheme which requires annual renewal by manufacturers.

- Each scheme has fundamentally different cost-recovery arrangements, with the WaterMark Scheme outsourcing the majority of administration to privately owned CABs and the ABCB only collecting a small royalty to pay for minimal internal functions.

Given the long list of fundamental differences between the two schemes, a transfer of responsibilities to deliver efficiencies would require fundamental changes to the design, operation and administration of either the WaterMark Scheme (or ABCB) or the process by which WELS Scheme plumbing products are administered and managed, once transferred to WaterMark. This argument is most powerfully summarised in the Consultation Draft for the 2015 review of the WaterMark Scheme:

The objectives [of] the WaterMark Certification Scheme (WMCS) and the Water Efficiency Labelling and Standards scheme are compatible, but they are not interchangeable. The WMCS cannot meet the objectives of the WELS scheme, nor vice versa. At best, the schemes can support each other to a limited extent, as WELS has done by making WM certification a condition of registration for those plumbing products covered by both schemes (GWA 2014).

Alignment of the WELS Scheme and E3 Program

There are potentially stronger parallels between the WELS Scheme and the E3 Program than is the case with the WaterMark Scheme – which could make incorporating WELS Scheme requirements for whitegoods under the E3 Program less costly and more straightforward than for WELS Scheme plumbing products under the WaterMark Scheme.

In a similar way to the WELS Scheme, the E3 Program is administered by a Commonwealth Government department and is established under national legislation (Section 5.1). In addition, the E3 Program similarly promotes efficiency (albeit energy efficiency) and is a point of sale consumer advisory scheme. The revenue generation model of the E3 Program is not dissimilar to the cost-recovery arrangements currently in place under the WELS Scheme (although the E3 Program annual budget is substantially larger based on the larger total number of products registered).

While these similarities exist, there are also some key differences, including that:

- Out of the almost 15 electrical product categories that the E3 Program covers, only two are covered under the WELS Scheme (dish washing machines and clothes washing machines).
- Registrations under the E3 Program are for five year periods, unlike the WELS Scheme which recently moved from five yearly periods to an annual registration cycle.

Given the high-level similarities between the WELS Scheme and E3 Program, transferring responsibilities for WELS Scheme whitegoods to the E3 Program appears more feasible because merging the two schemes would not require a fundamental change to objectives or focus (unlike merging WELS plumbing products with the WaterMark Scheme). On this basis, the risks of compromising the WELS Scheme objectives and outcomes are reduced.

There is also a higher degree of alignment in transferring government administrative functions and other responsibilities for whitegoods to the E3 Program based on the similar regulatory, administrative and operational arrangements; as well as corporate knowledge located within the Department of Industry and Science regarding administering consumer advisory schemes and broader government public policy.

Costs and benefits

Given that what is proposed under this option for the E3 Program represents the administrative integration of two branches across two Commonwealth Departments – and this occurs frequently through machinery of government changes – it can be assumed that costs could be manageable. While the costs of transferring responsibilities from the WELS Scheme to the E3 Program shouldn't be ignored, based on the level of alignment between the schemes they are unlikely to be as excessive as transferring responsibilities to the WaterMark Scheme.

Assuming the logistics are not overly complex, and costs not prohibitively high in transferring certain responsibilities under the WELS Scheme to the E3 Program, such an outcome could realise a number of efficiencies and synergies for whitegoods; particularly in relation to registration and compliance, investigating new products and standards, and communications and training programs. This outcome could address a number of issues regarding regulatory burden imposed by the WELS Scheme (Section 8.1.5) – at least for whitegoods manufacturers and suppliers. However, to achieve the efficiency savings expected from such a transfer, it would be necessary to align the current registration periods and respective requirements for the WELS Scheme and E3 program (including registration, renewal, database management, and compliance and enforcement).

It could be reasonably expected that similar efficiencies be realised for plumbing product manufacturers and suppliers by transferring responsibilities to the WaterMark Scheme; however, based on an assessment of the alignment above, logistics would be more (and potentially prohibitively) complex and costs much larger.

In addition, the principal downside of transferring responsibilities to the WaterMark Scheme and E3 Program is a likely reduction in the focus on water efficiency within broader water policy at the Commonwealth Government level (i.e. the WELS Scheme no longer being located within the Department of the Environment).

Summary

A merger involving the transfer of relevant WELS Scheme products to the Watermark Scheme and E3 Program would be challenging, and would involve substantial administrative and operational changes. There is a high probability that the cost and complexity involved would outweigh the benefits that might be achieved (which would only apply to a limited number of stakeholders).

Based on the above assessment, the Reviewer believes that this option is neither feasible nor desirable. This is based on a number of considerations – including:

- risks posed by transferring certain WELS Scheme responsibilities for plumbing products to the WaterMark Scheme
- costs and complexity of transferring WELS Scheme responsibilities being likely to outweigh any expected policy or financial benefits.

In this context, considering the option presented in the following subsection (which has the potential to deliver substantially the same practical benefits as the transfer of responsibility option presented here, without the disbenefits), the Reviewer believes that a transfer of certain WELS Scheme responsibilities to the WaterMark Scheme and E3 Program respectively is not an appropriate course of action.

Finding 52:

Transferring responsibility for WELS Scheme plumbing products to WaterMark, and WELS Scheme whitegoods to the E3 program, is not an appropriate course of action given the substantial differences between the purpose, intent and operation of WELS and WaterMark, with the likely combined cost of such transfers outweighing any potential financial and policy benefits.

9.4 Option 4 – Continuation of the WELS Scheme with modifications

Option 4 is designed to respond to various issues raised in the course of this review – including stakeholders' comments and observations made by the Reviewer. In order to address the breadth of issues raised, the option is composed of a number of individual measures, which in the Reviewer's view are interrelated and should be considered in combination, rather than as separate measures. While they should be assessed as a complete package, each are presented and discussed in turn below.

9.4.1 Description of Option 4

Under Option 4, the WELS Scheme is retained as a discrete scheme, including its objectives and major design elements. However, a number of substantive changes to its operation and administration are proposed. These include:

- Streamlining the registration process for the WELS Scheme, E3 Program and WaterMark Scheme for products that are covered by more than one scheme. This includes development of a 'one stop shop' comprised of streamlined documentation, and a common portal with a unified registration process for registrants, which could be supported by streamlined administration of the WELS Scheme and E3 programs within one government agency or body.
  - This is proposed to address the extent of direct and indirect costs on industry and reduce the overall regulatory burden, while also contributing to reductions in the administrative and operational cost-base within government.
- Development and implementation of a risk-based compliance and enforcement framework.
  - This is proposed to ensure compliance and enforcement activities are proportionate to the risks associated with non-compliance, and also lead to reductions in the costs of compliance for both industry and government.
- Modifying the approach to stakeholder engagement and consultation.
  - This is proposed to address stakeholder concerns about the effectiveness of engagement, and ensure the WELS Scheme can more readily adapt to their needs and requirements over time.
- Changing the target cost-recovery split between government and industry to 50:50.
  - This is required to ensure financial contributions more accurately reflect the distribution of benefits to different stakeholders and is based on established cost-recovery principles. Cost reductions delivered by the previously mentioned measures should help to make a

transition to this arrangement possible without significantly increasing government contributions in absolute dollar terms.

- Changing the product registration period to reintroduce a five year registration term, with associated modifications to expiry and grace period arrangements.
  - The five year period would help ensure better alignment between related schemes mentioned in Section 5, and associated modifications would address major concerns about unnecessary costs or risks imposed on industry by potentially unregistered stock. This change would also be facilitated by combined reductions in the cost-base delivered by other measures.

9.4.2 Assessment of Option 4

Assessment of this option considers each of the individual measures it is composed of in turn, describing the actions required and their justification in more detail. Relevant stakeholder views are presented where relevant, along with a discussion of the likely costs, benefits and other considerations associated with each measure. An overall assessment and summary is presented in conclusion.

Streamlined registration and administrative processes

Pursuing administrative efficiencies between the WELS Scheme, E3 Program and WaterMark Scheme (but not necessarily merging administration of the schemes such as proposed under Option 3) is likely to be able to be implemented with relative ease. Seeking such points of efficiency could reduce both direct costs across all schemes, but also importantly reduce indirect costs and regulatory burden for those registrants with products covered under two schemes.

The easiest first step of better integrating administration of the schemes would be to develop a streamlined registration process. This could take the form of a 'one stop shop' common portal with a unified registration process for registrants of all schemes to use. This interface would provide registrants with a single online registration form for whitegoods (WELS Scheme and E3 Program) and a form for plumbing products (WELS Scheme and WaterMark Scheme). This could alleviate some of the costs borne by registrants in the multiple registrations that they are required to complete. It could also reduce costs to government because duplications in the registration process across the schemes could be reduced and the remaining costs shared.

As noted in Section 4.2, a similar integration was proposed and recommended in the 2010 Review – 'single web portal be established to provide information about WELS, WaterMark and Smart-Approved WaterMark' (Guest 2010) – but did not go as far as to recommend streamlined registration processes and was ultimately not accepted by government on the basis of forthcoming changes to the WELS Scheme website (Australian Government 2011b).

While stakeholders generally support the development of this approach, and the Department indicated that it would be technically possible and not prohibitively expensive, a full feasibility assessment involving each of the administering entities – Department of the Environment (WELS Scheme), Department of Industry and Science (E3 Program) and ABCB (WaterMark Scheme) – would be needed before pursuing this further. This discussion would also provide a convenient forum in which to evaluate other medium-term administrative solutions, which might include the inclusion of administrators of the Smart Approved WaterMark.

Finding 53:

Developing a common portal with a unified registration process for products covered by more than one scheme or program should reduce direct and indirect costs on industry and government, and reduce the overall regulatory burden on stakeholders of all schemes.

In addition, the Department could outsource assessment of applications and registration to a third party (potentially to CABs as is currently the case under the WaterMark Scheme). Product certification, collection of registration fees and data entry into the WELS Scheme Product Database could also be outsourced. This approach would likely result in a decreased staffing requirement within the Department and has the potential to drive down the costs of these activity (through competitive provision of the services). The ability to align these administrative steps more closely with those of the WaterMark Scheme in particular, should also simplify and streamline processes for industry with resultant decrease in regulatory burden.

The extent to which the direct financial costs of the WELS Scheme would reduce is unclear (it would depend on the pricing schedules developed by the third party). A number of CABs consulted as part of this Review indicated their interest in this outsourcing option. While some stakeholders cautioned whether or not CABs would be able to undertake the technical roles associated with product certification with the same degree of diligence, the Reviewer believes that current oversight and accreditation of CABs through JAS-ANZ should be sufficient to provide the requisite quality assurance.

Also, while the Department could feasibly outsource the registration process for the WELS Scheme and reduce one or maybe two full time equivalent positions, it would still be required to undertake all other associated administration duties (such as compliance and enforcement, and policy development). Pending resolution of these unknowns, including important further testing with stakeholders and potential third parties, the Reviewer is not able to confidently find that the benefits of pursing this outsourced model for Scheme registration would at this stage outweigh the costs or potential risks. Rather, the Reviewer is of the opinion that the Department should further explore (before the next independent review) the efficiencies that it could realise.

Finding 54:

There would be merit in further assessing the feasibility of outsourcing registration arrangements under the WELS Scheme due to the cost savings that it could realise for government and industry.

Further to streamlining registration applications and potentially outsourcing, it appears that efficiencies could be realised from integrating the overall administration of the WELS Scheme (both whitegoods and plumbing products) with the E3 Program, based on achieving administrative efficiencies across both schemes (see Section 9.3.2). In this situation, both would remain distinct programs, but with a common administrative back office.

Prior to the establishment of the E3 Program, administration of energy efficiency labelling was located within the same departmental branch (within the Department of the Environment) as the WELS Scheme. While there are likely to be some costs involved in transferring government responsibilities between Commonwealth Government departments, there appears to be no good reason why two very similar schemes should not be located in the same department.

While there are practical and stakeholder issues to overcome, which would require further discussions and collaborative work between the Department of the Environment and Department of Industry and Science, as well as jurisdictional support, the potential benefits and efficiencies that could be gained by merging back office administration of both the WELS Scheme and E3 Program are likely to warrant the effort. On this basis, the Reviewer believes that there is a case for the WELS Scheme and E3 Program being located within the same Commonwealth Government department in the future. However, it is stressed that while the Reviewer supports both schemes being located in the same department, this is not intended to suggest the public facing component (labelling or branding) of either scheme should be merged or changed. Doing so could compromise the public recognition and use of both schemes, and in turn potentially undermine the expected outcomes (water savings, consumer financial benefits, greenhouse gas emissions abatement etc.).

Finding 55:

Establishing a common administrative back office for the WELS Scheme and E3 Program within the same Commonwealth Government department could deliver a range of benefits and efficiencies.

Risk based compliance and enforcement

Under current arrangements, the compliance and enforcement activities undertaken to ensure products are registered correctly and point of sale labelling meets legislative requirements is relatively costly, in the context of the risks presented by non-compliance and the WELS Scheme's current budget (Section 8.2.4). In some cases it appears that the costs of current strict enforcement of the WELS Scheme requirements may outweigh the benefits to the public and potential risks to meeting the Scheme objectives (see Section 8.2.4). In addition, it is expected that to adequately address the risks posed by online sales and direct import under the current approach to compliance and enforcement, either the costs of compliance will need to grow or the Department will need to find a more cost-effective and targeted solution (Finding 46).

To address these issues, a risk-based compliance and enforcement policy and framework could be developed. This framework would aim to better focus compliance and enforcement on targeted activities that are expected to deliver the greatest benefits, ensure that enforcement is not escalated for the sake of it and improve transparency around the Department's approach to compliance and enforcement (potentially alleviating some stakeholders' concerns about the current equity of compliance and enforcement as noted in Section 8.2.4).

The framework could be based on targeting examples of non-compliance that pose significant risk to meeting the WELS Scheme objectives and non-compliance that has the potential to significantly impact on the competitiveness of compliant businesses (i.e. examples of businesses that are non-complaint and therefore are not incurring the costs of the Scheme like other participants). However, for such a policy to be effective it is important that it be developed in consultation with industry and has a clear definition of what specific risks it is based on.

Development of this framework would incur some upfront costs, mainly internal staff resources (but development could also be outsourced to a third-party in collaboration with the Department). However, the implementation of such a framework to guide compliance and enforcement actions could make actions by the Department more cost-effective and ultimately reduce administration costs. An increased focus on education and compliance assistance, rather than enforceable

undertakings or prosecutions, could decrease costs for both government and industry in meeting compliance obligations, because costly legal or other avenues of enforcement would not need to be pursued and could result in the same or better levels of industry compliance.

Overall, developing a risk-based compliance and enforcement framework should improve the cost-effectiveness of compliance auditing and checking, reduce costs to industry and government without significantly reducing levels of compliance (and thus not increase risks posed by non-compliance.) It should also allow WELS Scheme staff to focus on more complex and important compliance advice or enforcement action.

Finding 56:

Developing a risk-based compliance and enforcement framework has the potential to reduce costs for all parties and improve the cost-effectiveness of those actions that are undertaken, without compromising the objectives of the WELS Scheme.

To complement the introduction of this risk-based compliance framework, continued dialogue with the E3 Program and WaterMark Scheme would improve prospects of identifying opportunities to reduce the compliance burden on industry and deliver savings to government, such as:

- Combined check testing under the E3 Program's established check testing program for dish washing machines and clothes washing machines, noting that the WELS Scheme is not currently undertaking a check testing process of its own due to budgetary constraints (see Finding 45).
- The WELS Scheme compliance team working with state and territory based authorities (charged with enforcing the WaterMark Scheme at point of installation) to identify instances of direct import of non-registered WELS Scheme products into Australia by the construction sector (see Finding 46).

This approach opens avenues to better use linkages with state and territory consumer affairs departments or similar agencies that regularly undertake local compliance monitoring to increase the cost-effectiveness of compliance and enforcement activities that the Commonwealth Government undertakes itself.

Approach to stakeholder engagement and consultation

Stakeholder consultation for this Review and assessment of the effectiveness of WELS Scheme engagement mechanisms (Section 8.2.2) suggests that stakeholders (mainly industry) held concerns about the effectiveness of current engagement mechanisms and expressed preferences on how it could be improved (Finding 39 and 41).

The first, and most fundamental, modification to current stakeholder engagement mechanisms is to remove the requirement that WELSAG convene on a regular basis (notionally annually) and improve representation of stakeholders through its membership. This option proposes that WELSAG only convene for independent reviews every five years, or for other specific tasks where targeted industry input can be justified. In addition to these modifications, this option also proposes to increase the effectiveness of stakeholder engagement through the convening of forums and improving relationships with WELSOG members.

Regardless of the findings and recommendations of this Review in relation to WELSAG, it is understood that current Commonwealth Government policy favours the removal of advisory groups such as WELSAG, the recent convening of which was only approved on the basis that it would aid this Review (i.e. it would not otherwise have met). In this regard, it appears that WELSAG will not meet on an ongoing basis. While the removal of this requirement will only reduce the administrative costs of the WELS Scheme marginally, there is no great foreseeable cost involved in removing the requirement that WELSAG meet (such as legislative change or similar).

Finding 57:

There appears to be no strong justification that WELSAG should meet on a regular (scheduled) basis.

If WELSAG does not meet on a regular basis, it will be critical for the Department to ensure effective stakeholder consultation through other means – ideally in a more cost-effective manner. Most industry stakeholders were of the opinion that forums would be the most effective means by which the Department could engage with all industry stakeholders (see Finding 41).

In consultation with the Department it was clear that stakeholder forums undertaken previously were targeted towards specific changes in the WELS Scheme and were a relatively costly exercise. In this context, it is clear that if implemented, any future forums would need to be targeted in a similar way (i.e. there is no benefit in holding a forum if no recent changes have been made to the administration of the Scheme), and the costs of undertaking such forums need to be accounted for (i.e. the costs saved from WELSAG not meeting should not necessarily be offset by increased costs of administering annual stakeholder forums).

To reduce the costs of holding stakeholder forums and engagement more generally, the Australian Industry Group, in their submission, suggested that the Department give consideration to the development of a webinar series or hold online broadcast forums. Utilising such technologies to engage with more stakeholders than might be the case with more traditional formats could help to address any concerns about WELSAG (i.e. representation, transparency, conflicts of interest and dissemination of information to constituent stakeholders – see Section 8.2.2). Such technologies would also arguably allow more stakeholders to participate due, to the lower transaction costs for participants (especially retailers who can't necessarily attend forums during business hours), and lower costs for the Department.

More broadly, conversations with stakeholders indicate that the Regulator needs to maintain transparent and regular conversations with all stakeholders to ensure ongoing sustainability of the WELS Scheme (Section 8.2.3 and Finding 42 and 43). Stakeholder forums such as described above will arguably increase access, reach and involvement of a broad diversity of interested parties, and ultimately benefit all – including the Commonwealth Government in its ability to manage an appropriate, effective and efficient scheme.

Finding 58:

These is justification for convening stakeholder forums where material changes are planned or have been made to the WELS Scheme, and the use of improved technology to reach a broader audience could lower costs.

In combination, convening WELSAG only once every five years, plus using technology and non-traditional stakeholder engagement mechanisms (e.g. webinars) where appropriate could assist in reducing the cost-base of the WELS Scheme overall; although the actual potential cost saving has not been quantified.

In addition, more regular and inclusive communication with WELSOG and jurisdictions by the Regulator will likely bring a number of benefits not currently being realised (see Finding 40). Increased 'buy in' from WELSOG members will likely improve promotion of the WELS Scheme at the state and territory level, and increase its use as a point of reference (thus potentially delivering more indirect benefits through reductions in regulatory duplication). This outcome could lead to an increase in the education level of stakeholders and the general public about the WELS Scheme, and increase consumer awareness and impact of the Scheme, in turn helping to overcome levels of confusion between similar schemes. Improving relationships with WELSOG members would likely come at very low cost.

Furthermore, increased communication with WELSOG members will likely improve the ability to seek compliance and enforcement efficiencies discussed above – of which an important link will be increasing dialogue with state-based plumbing and construction regulators to better monitor the direct importation of designated products.

Target cost-recovery split

Based on a comprehensive assessment of the appropriateness of WELS Scheme financial costs and cost-recovery arrangements, it is clear that the current 80 per cent private (industry): 20 per cent public (government) cost-recovery split is inequitable and inappropriate given the nature and distribution of benefits provided by the Scheme (Finding 25 – see also Table 6). In line with this assessment, this option proposes the introduction of a 50 per cent private: 50 per cent public cost-recovery split.

Based on the estimated distribution of benefits (for example in Section 6.4) and current imposition of costs (Section 7), a 50:50 split appears to be a more equitable cost-recovery target. On the whole, industry stakeholders consulted for this Review support a 50:50 split and it aligns with research on the appropriate cost-recovery approach for the WELS Scheme that the Department commissioned following the 2010 Review (Deloitte 2011 – however, this report is yet to be made public by the Department).

While at a principles level change to a 50:50 cost-recovery split appears appropriate, an outcome is that the dollar value contribution from all Australian governments would need to rise (potentially almost double) from current levels, if the cost-base of the WELS Scheme remained fixed ($1.44 million per annum).

To counter this expected rise, the above administrative efficiencies proposed could reduce the overall cost-base of the WELS Scheme in future years from the current $1.44 million budget for the 2014–15 financial year; however, the extent of this has not been specifically quantified. While the Reviewer is confident that further cost reductions can be managed without compromising benefits, the Department contends that the WELS Scheme budget is already running in 'lite' mode and aside from a reduction in the Scheme's scope of activities there is little room to further reduce the overall budget (see Section 3.5.2).

Notwithstanding the Department's point of view, and noting that the budget of $1.44 million has already been reduced from an approved $1.96 million for the 2014–15 financial year, the best estimate of the Review Team is that option above (i.e. Option 4) could be administered for between $800,000 and $1,000,000 per annum in direct financial costs (expenditure). While the cost-base of the WELS Scheme could not be reduced immediately (implementation of the proposed reforms will require resourcing), the Reviewer believes that savings are achievable if reforms proposed are delivered.

Notionally, combined contributions from both the Commonwealth Government and jurisdictional governments are currently slightly less than $400,000 dollars per annum. No change to this contribution in future years could, if the above cost-base reductions are realised, cover approximately 40 to 50 per cent of the future direct costs of the WELS Scheme. This fact, combined with the conclusion that industry are currently inequitably contributing too much to the Scheme through registration fees (Section 8), supports a movement towards a 50:50 cost-recovery split between industry and government. While this outcome would significantly alter the current 80:20 split on paper (or 86:14 split projected for this financial year – not including the surplus accruing to the WELS Scheme special account), moving towards such a split would unquestionably be more equitable based on the distribution of benefits and the public goods delivered by the Scheme.

Finding 59:

A 50:50 cost-recovery split is more reflective of the distribution of benefits and therefore more equitable, and can be implemented without major impact on current levels of government contributions if other suggested reforms are pursued.

Product registration term

In addition to moving to a 50:50 cost-recovery target, another major modification tested with stakeholders by the Reviewer was amending product registration arrangements from an annual cycle back to a five year cycle – as was the case prior to 2013 (see Section 4.1.3). However, with the important additions that the five year registration period proposed under this option would retain the consistent annual expiry date (21 January as is currently), which was not in place in the five year periods prior to the change in 2013, and the six month grace period currently in place would be extended to 12 months to reflect the increase in registration period.

Broadly speaking, moving back to a five year registration term could potentially reduce the annual administrative burden to industry (Section 8.1.5 and Finding 29) and also enable the Department to reduce the administrative cost of registration, based on the fact that the registration team will no longer be required to assess over 20,000 registrations per annum.[64]

Furthermore, a five year term of registration (compared to an annual period) would provide retailers (especially small business) with more certainty around their ability to order and sell stock before registration expires. Based on stakeholder estimates that it can take up to 18 months between order

[64] Rather, based on the Department's estimation that product turnover is approximately 10 per cent, the number of registrations that would require assessment could be as low as 2,000 per annum – a 90 per cent reduction.

and stock being received, a five year registration period with a 12 month grace period (increased from current six months) seems appropriate in that it would likely prevent the destruction or return of stock to manufacturers in almost all cases, while posing little risk to the WELS Scheme's objectives or outcomes for consumers (Finding 16).[65]

Also importantly, a five year registration period better reflects the current period adopted by the E3 Program – making any integration with the E3 Program easier from an administrative perspective. Corresponding registration cycles, combined with the common portal with a unified registration process proposed above, will also reduce the costs for registrants of whitegoods as they will be able to register one product for five years under both schemes; not for five years under one and annually under the other.

Based on estimates provided by the Department and industry stakeholders, a five year registration period also better reflects the average product lifecycle, in that most products brought to market would not need to have registration renewed after a single five year registration has expired – six years including the grace period (Section 7.3.1). This would be an improvement over the current arrangements where most registrants need to take out multiple annual registrations to cover a product's lifecycle, and would reduce the average annual regulatory burden for the majority of registrants.

Despite the potential benefits, moving to a five year registration cycle could increase upfront costs for registrants because fees need to reflect the cost of administering the product under the WELS Scheme across five years, rather than one. Depending on the amount required to cover a five year period, some market participants – primarily small businesses – may suffer additional cash flow pressure and a larger upfront fee could represent a barrier to market entry that does not exist under current arrangements (see Finding 22).

In testing this proposal with industry, the need to increase upfront fees to cover a five year term was acknowledged. Based on the likely benefits, an increase was seen as acceptable by the majority of industry stakeholders, dependent on the quantum of rise in fees. In considering this point, it should be recognised (Finding 14) that most if not all WELS Scheme costs incurred by registrants are passed on to product suppliers or consumers. As a result, the main concern here seems to be related to cash flow rather than absolute amount of the fee. So, while introducing a five year registration period has merits, it should be assessed in the context of the impact of fees on registrants and the broader financial sustainability of the Scheme.

Furthermore, one of the Department's primary motivations in 2013 for moving to an annual registration period was to smooth out the WELS Scheme's revenue cash flow (see Section 4.1.3). Moving back to a five year cycle increases exposure of the Commonwealth Government to similar cash flow risks if either the total number of new product registrations in a given year is lower than estimated or an inadequate amount is recovered through fees per product (i.e. a fee which doesn't adequately reflect requirements to administer that product over the five years that it is registered).

[65] If the product still meets all applicable standards and was registered with the WELS Scheme as recently as 12 months ago, there is little reason why this product should not be taken off the market.

It is important to note that even if a five year registration cycle were adopted, the need for a consistent annual expiry date (so that products registrations can be practically managed by both government and industry) would still require suppliers to check the registration currency of their stock on an annual basis, although the likelihood of expiries (with consequent remedial intervention required) would be less (Finding 15 , 16 and 27).

Upon testing this proposal with the Department, the Reviewer was informed that changing to a five year registration period would require some degree of legislative change. This increases the complexity of this option and also results in additional cost.

Finding 60:

A five year product registration cycle has merits based on potential benefits to industry and cost savings for government, but it is important to carefully consider the upfront costs for industry and cash flow risks for government.

Feasibility of proposed modifications

Despite the suite of modifications outlined above working on a theoretical level and all having the ability to deliver important improvements on the operation of the WELS Scheme, the assessment of Option 4 also raised concerns about the:

- ability to realise cost-savings from the suite of modifications that would allow the Department to administer the Scheme with an ongoing expenditure of between $800,000 and $1 million
- impact that a move to a 50:50 cost-recovery target might have on the required contributions from all governments if cost-savings are not realised
- ability for registrants to deal with cash flow issues presented by an upfront payment of fees to cover a five year registration period
- adequacy of, and risks to, revenue cash flow for the Department in administering the Scheme under a five year registration period.

To further test the feasibility of Option 4, the Review Team used the same revenue-expenditure forecast model presented in Section 8.3.2 to test different scenarios. This model provides estimates of the financial implications of implementing Option 4. Scenarios are based on assumptions about if (and to what extent) the modifications (described above) proposed as part of Option 4 might be implemented. The scenarios tested and presented here include:

- Scenario 2 – which is aimed at achieving lowest costs, and therefore lower contributions and per product fees for industry, as well as a fairer distribution of costs between government and industry, based on:
  - the WELS Scheme cost-base reducing consistent with proposed cost-saving measures, resulting in an operating budget of $880,000 per annum from 2018
  - implementation of a 50:50 cost-recovery split, as this is more reflective of the distribution of benefits
  - an assumption of 15 per cent product turnover, as this would provide the largest realistic pool of products across which to distribute registration fees.
- Scenario 3 – which includes a more conservative estimation of model variables, including that:

  - WELS Scheme expenditure remains unchanged (i.e. constant at the current $1.44 million per annum level)
  - implementation of a 50:50 cost-recovery target (which is assumed to be met)
  - an assumed rate of product turnover of 13.5 per cent (mid-way between industry and government estimates).
- Scenario 4 – which assumes the least degree of change, including that:
  - there is no change to the cost base; $1.44 million remains the annual scheme budget
  - the current cost-recovery split of 80 per cent industry, 20 per cent government remains, but assumes this target will actually be met
  - product turnover will be 10 per cent, which is the lowest realistic estimate of products available in the pool to recover fees from.

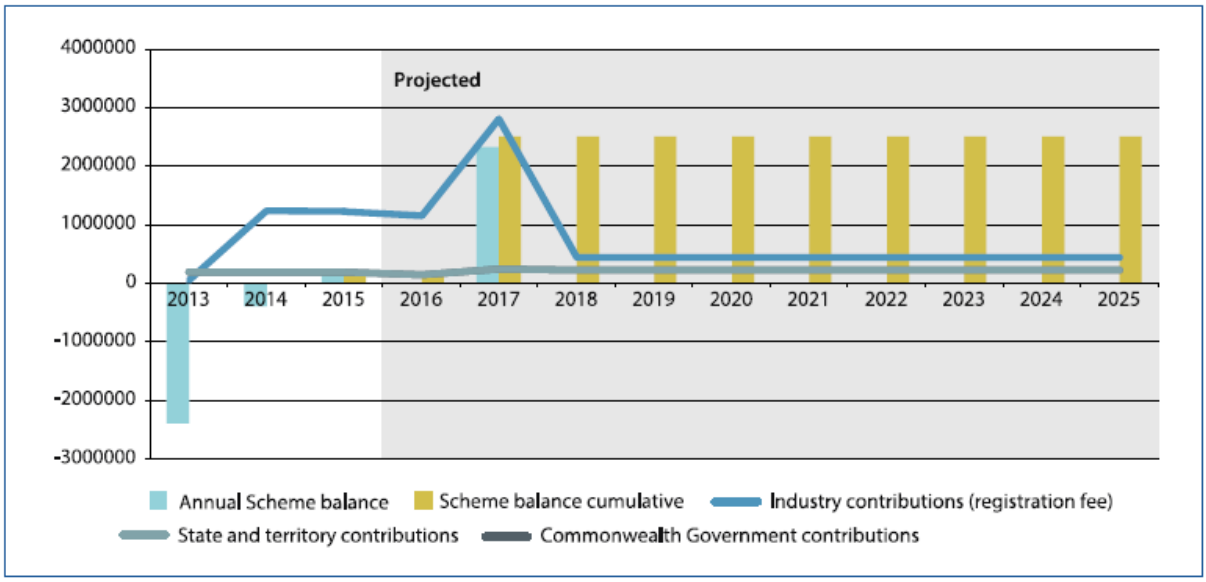
Under all scenarios, no modifications introduced under these scenarios are implemented until the 2017 registration year; a five year product registration period is assumed, and only 75 per cent of total products are fee paying. Appendix I provides further details on assumptions made for relevant variables in the different scenarios. The results and implications of each scenario are discussed below.

Scenario 2 – implementation of full suite of modifications

There is a fairly high degree of uncertainty that product registration numbers will remain at current levels and 15 per cent turnover will be achieved, however, under Scenario 2 (Figure 26), the WELS Scheme can be expected to break even in years following 2017.[66] Total costs to industry under this scenario drop to around $440,000 per annum (or about one third of what they are under current arrangements). State and territory government contributions grow slightly to approximately $220,000 per annum, and ongoing Commonwealth Government contributions are also approximately $220,000 per annum.

[66] Under this scenario, a surplus of $2.13 million is generated in 2017 due to the need to register the approximately 20,000 products registered with the WELS Scheme under a five year registration term and charge a fee reflective of the cost of administering the product for five year, rather than a fee reflective of the total number of products registered in that year divided by the total cost borne by industry in that year. This equates to an ongoing balance of $2.53 million in the WELS Scheme's special account.

Figure 26. Scenario 2 – full implementation



Source: Aither, based on information provided by the Department of the Environment.
Note: See Appendix I for a list of all assumptions made.

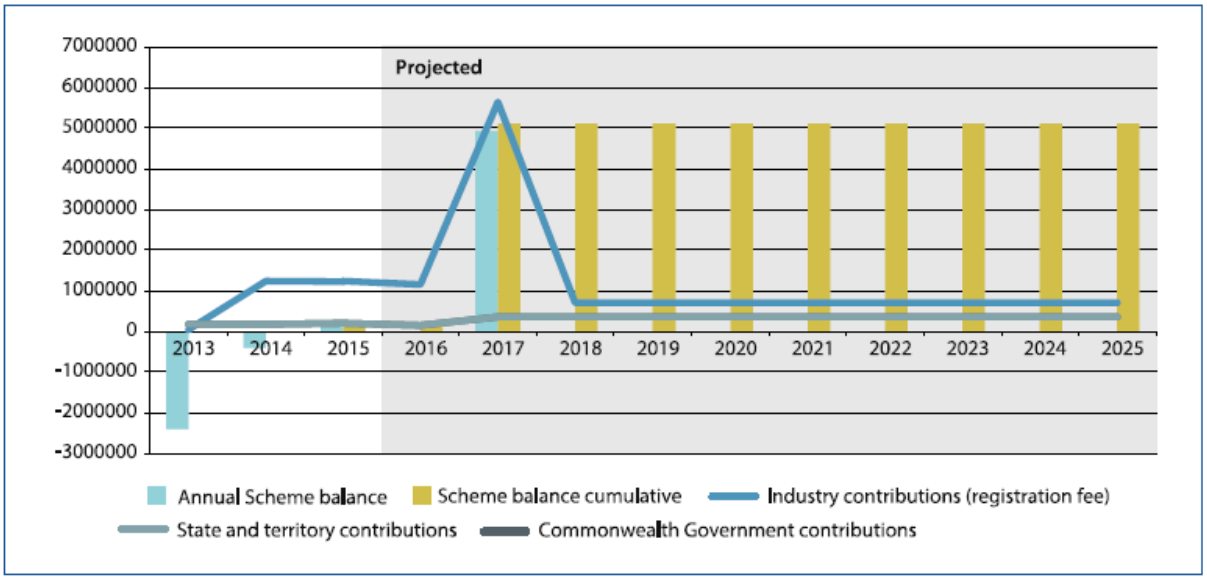
While this scenario appears financially sustainable from a revenue adequacy and contribution perspective, the model has two key assumptions that may not be realised in reality.

- The 15 per cent turnover in stock year on year is important in that under a five year registration cycle it determines how much revenue can be collected from industry on the registration of new products per annum (i.e. all products in the register are not being registered every year as is the case under current arrangements). A 15 per cent turnover rate has been assumed here as a best case scenario (in that it returns the lowest probable required registration fee per product). However, the Department estimates that the turnover rate is closer to 10 per cent – although no evidence was presented that confirmed this was the case.
- This scenario assumes that the Department will be able to make the necessary cost-base reductions and will be able to administer the WELS Scheme at an ongoing budget of approximately $880,000 per annum (from 2018 onwards). As discussed with the Department and noted elsewhere in this report, there is a risk that this reduction may not be achieved because of the risks presented to achievement of WELS Scheme objectives by cutting administration too severely.

Scenario 3 – introduction of full suite of modifications without cost-base reduction
Scenario 3 assumes that all proposed modifications under Option 4 will be implemented; with the exception of the cost-base reductions made by the Department (expenditure is assumed to remain constant at $1.44 million). In addition, it includes a more conservative assumption about the rate of product turnover (which increases per product registration fees).

Under Scenario 3 (Figure 27), the WELS Scheme can be expected to break even in years following 2017.[67] While there is again a fairly high degree of uncertainty that product registration numbers will remain at current levels, but more certainty (compared to Scenario 2) that a 13.5 per cent turnover will be achieved, total costs to industry are estimated drop from current levels to around $700,000 per annum (although higher than Scenario 2). Conversely, under this scenario, both Commonwealth Government and state and territory government contributions are required to grow to approximately $350,000 per annum each; more than under Scenario 2 and close to 46 per cent more than current arrangements.

Figure 27. Scenario 3 – full modifications excluding cost-base reductions



Source: Aither, based on information provided by the Department of the Environment.
Note: See Appendix I for a list of all assumptions made.

Under Scenario 3, the WELS Scheme is still able to maintain financial sustainability and deliver an annual reduction in total costs to industry of approximately $500,000. However, the assumed 13.5 per cent product turnover and no reduction to the cost-base means that industry must pay more in the first year of the five year registration cycle than under Scenario 2 (which assumed a 15 per cent turnover and cost-base reductions) because year on year fewer new products are registered, which means there is a smaller number of products from which to recover a larger amount money. Because no cost-base reductions are made, but a 50:50 cost-recovery split is assumed, annual government costs almost double from current levels.

Scenario 4 – least degree of change

Under this scenario, no cost-base reductions are made, the current cost-recovery target of 80:20 is maintained (but is assumed to be met), and product turnover is reduced to a 'worst-case' scenario of

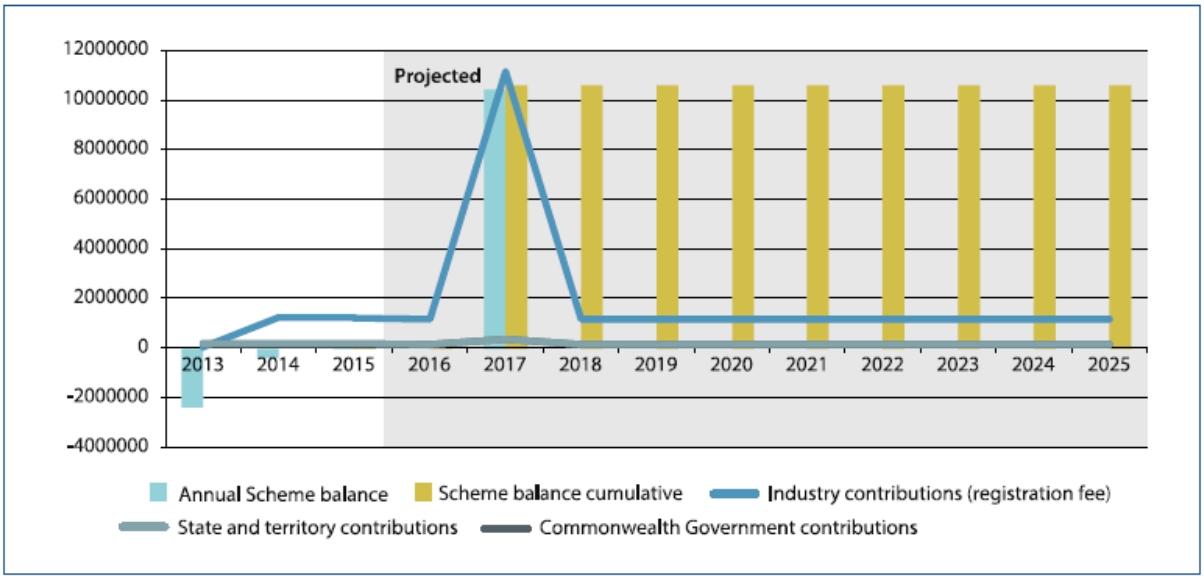
[67] Under this scenario, a surplus of $4.9 million in generated in 2017 due to the need to register all 20,000 products registered with the WELS Scheme under a five year registration term and charge a fee reflective of the cost of administering the product for five year, rather than a fee reflective of the total number of products registered in that year divided by the total cost borne by industry in that year. This equates to an ongoing balance of $5.1 million in the WELS Scheme's special account.

10 per cent. While this scenario might appear to be similar to Scenario 1 (tested under Option 2 in Section 9.2), the key difference is that this scenario introduces a five year registration period.

Under Scenario 4 (Figure 28), the WELS Scheme can be expected to break even in years following 2017.[68] While there is a fairly high degree of uncertainty that product registration numbers will remain at current levels but greater certainty (compared to Scenario 2 and 3) that at least a 10 per cent turnover will be achieved, total costs to industry drop to around $1.15 million per annum (or only slightly less than current contributions and the same as Scenario 1, but still significantly more than other scenarios tested under Option 4). On the other hand, both Commonwealth Government and state and territory government contributions can be expected to drop to approximately $145,000 per annum each, which is less than under Scenario 2 or 3 and close to 26 per cent less than under current arrangements.

The modelled rise in industry fees (compared to Scenario 2 and 3) under this scenario is due to there being no cost-base reduction and no change to the 80:20 cost-recovery split. Similarly, the modelled drop in government contributions (compared to both current arrangements and Scenario 2 and 3) is driven by the retention of the 80:20 cost-recovery split and assumed expenditure of $1.44 million per annum.

Figure 28. Scenario 4 – least degree of change



Source: Aither, based on information provided by the Department of the Environment.
Note: See Appendix I for a list of all assumptions made.

Impact of scenarios on required upfront per product industry fees

While all three scenarios tested above appear to be financially sustainable (notwithstanding changes to the dollar value of stakeholder contributions which may or may not be palatable), it is important

[68] Under this scenario, a surplus of $10.4 million in generated in 2017 due to the need to register all 20,000 products registered with the WELS Scheme under a five year registration term and charge a fee reflective of the cost of administering the product for five year, rather than a fee reflective of the total number of products registered in that year divided by the total cost borne by industry in that year. This equates to an ongoing balance of $10.6 million in the WELS Scheme's special account.

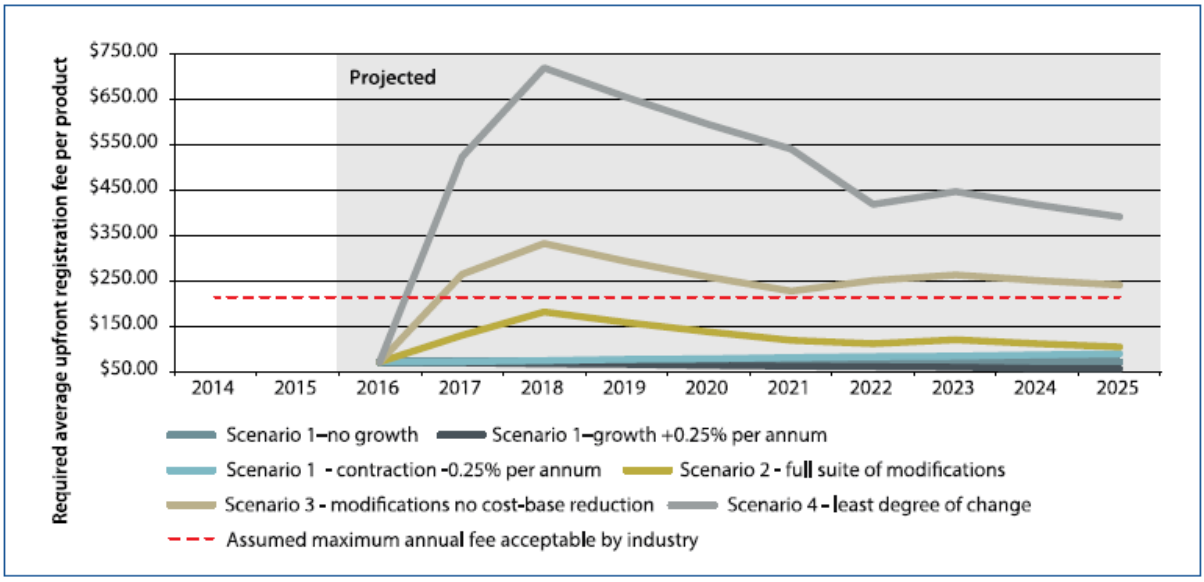
to assess the impact these scenarios may have on per product per annum registration costs – i.e. establishing how much individual registrants may have to pay under the different scenarios to register a single product.

To establish the per product per annum registration costs, the Review Team took the total expenditure that industry was assumed to cover in a given year (50 per cent of total WELS Scheme expenditure in Scenario 2 and 3 and 80 per cent in Scenario 4) and divided this number by the total number of assumed products that would be newly registered and fee paying (75 per cent) in that same year.

Under current arrangements (a business as usual scenario – see Section 8.3.2) the Department will be required to recover approximately $81 per product registered per annum. Where the 80:20 cost-recovery policy target is met (Scenario 1 – modelled in Section 9.2), the Department will be required to recover on average between $72 (no growth in product numbers) and $81 (slight contraction in numbers) per product registered per annum. All scenarios modelled under Option 4 (Scenario 2, 3 and 4) exceed these fee levels on an upfront basis (Figure 29) because they are recovering fees for a five year registration period, rather than a one year period:

- under Scenario 2 the Department would be required to recover an average of approximately $132 per newly registered product per annum across all years
- under Scenario 3 this rises to $266 per annum
- under Scenario 4 it rises again to $524 per annum.

Figure 29. Impact on registration fees Scenarios 2, 3 and 4



Source: Aither, based on information provided by the Department of the Environment.

This large increase in upfront registration fees under Scenario 2, 3 and 4 is driven by the fact that per product fees must cover the associated administration costs of that product over a term of five years and not for a single year, as is the case under current arrangements.

In proposing a move to a five year registration period, the maximum upfront fee acceptable to industry was tested by the Reviewer. Industry generally agreed that under a five year cycle they

would unlikely support an upfront fee more than 300 per cent higher than current fees. Industry would be obtaining five years' worth of registration and therefore increased value from this arrangement, so 300 per cent may appear low. However, the concern industry raised was that because fees would be paid upfront, increases beyond 300 per cent could:

- create the potential for barriers to entry for new products
- challenge participants' ability to pass on the cost on all product models
- create cash flow impacts – especially to small businesses that may not have sufficient working capital to pay a five year fee in advance for all of their products.[69]

A 300 per cent increase on current registration fees (which are $81 per product per annum) would equal an upfront fee of $243. Based on the scenarios modelled under Option 4 (Scenario 2, 3 and 4), only Scenario 2 ($132 per newly registered product per annum) would be acceptable based on consultations with industry. Scenario 3 ($266 per newly registered product) is only slightly above this 300 per cent increase mark, so could potentially be negotiated.

While based on required upfront registration fees the above scenarios don't necessarily appear feasible, on an annual basis (i.e. distributed across five year period) Scenario 2 (full implementation) and Scenario 3 (changes other than cost-base reductions) have the ability to save registrants approximately 67 and 34 per cent respectively (on a per product basis) compared to current arrangements (Table 12). Annual per product registration fees under Scenario 4 (least change) offer no savings over a five year period.

Table 12. Comparison of annualised required registration fee under different scenarios

Scenario	Annualised required registration fee
Business as usual	$81
Meeting policy target (Scenario 1) – growth	$65
Meeting policy target (Scenario 1) – no growth	$72
Meeting policy target (Scenario 1) – contraction	$81
Full implementation (Scenario 2)	$27
Changes excluding cost-base reduction (Scenario 3)	$53
Least degree of change (Scenario 4)	$105

Source: Aither.

[69] The Reviewer did consider the option of a five year registration period with the fee payable in five equal annual instalments. This option overcame the cash flow issue of industry being able to meet the high upfront payments, but was dismissed for several reasons: 1) annual invoicing, tracking and receipting of funds involved additional administration cost to government and did little to remove the administrative burden for registrants; 2)there were complexities and costs of associated with recovering unpaid fees; 3) the status of 'registered' products where annual fees were unpaid would be questionable; 4) there being little incentive for a manufacturer to pay the fees for year 4 or 5 if it is no longer manufacturing the product; and 5) there being no benefits to suppliers related to increasing confidence in purchasing decisions or associated reductions in regulatory burden compared to current arrangements.

Finding 61:

Full implementation of proposed modifications under Option 4 would represent a best case outcome in terms of improving the appropriateness, effectiveness and efficiency of the WELS Scheme, but implementation of one element – a five year registration period for products – may be impractical based on the:

- impact on industry of the level of upfront registration fees required
- risk that total revenue from registration fees (due to registrants choosing not to register products and thus shortfall) not be adequate or WELS Scheme administration costs could not be sufficiently reduced to provide adequate confidence in the financial sustainability of the Scheme.

Summary
In summary, Option 4 has assessed a package of modifications to the WELS Scheme in an endeavour to address all of the main concerns and opportunities emerging from the Review. Implemented in full, the Reviewer views that this option would substantially improve the appropriateness, efficiency and effectiveness of the WELS Scheme. However, implementing all modifications proposed may have certain impacts or implications that are difficult for some stakeholders to manage – including the impact of upfront fees on industry.

While it has been established that introducing a five year registration period could achieve many direct benefits (Finding 6), the size of the increase in upfront fees that may be required might not be acceptable to industry (Figure 29). Nevertheless, the Reviewer views that all other modifications proposed under this option (including changes to registration processes, compliance and enforcement, stakeholder engagement, and cost-recovery) are realistic, achievable and generally supported by stakeholders.

9.5 Summary

In summary, four main options for the future of the WELS Scheme have been assessed:

- scheme cessation
- continuation without major modification
- transfer of relevant products to the WaterMark Scheme and E3 program
- continuation of the WELS Scheme with modifications.

WELS Scheme cessation was discounted because it would mean compromising substantial water savings and other benefits for a wide range of stakeholders, could lead to more costly arrangements overall, and is not supported by stakeholders. Continuation largely unchanged was found to fail to address a range of material concerns and opportunities to improve. Transfer of products to the two other related schemes is not appropriate given misalignment between purpose and intent of some schemes, and the cost of change likely outweighs any benefits achieved.

Based on this assessment, it is the opinion of the Reviewer that Option 4 is the preferred course of action; however, this may not involve pursuing a five year registration period at this time.

10 Conclusions and recommendations

Based on this Review's assessment of the WELS Scheme (Section 8) and an assessment of a range of proposed options (Section 9), the Review finds that there continues to be a sound public policy rationale for the retention of the Scheme. To address important opportunities and make improvements on current arrangements, the Review recommends a package of measures focussed on securing current and future benefits while reducing financial costs and regulatory burden to industry, and improving administration.

Recommendations to this effect are provided in the subsections that follow. It should be noted that these are made cognisant of the fact that the WELS Scheme has only recently undergone a large amount of reform and change. With the potential of reform fatigue for both government and industry, the recommendations are posed with the view that some should be implemented immediately, while others may be more long-term.

10.1 Securing current and future benefits

The WELS Scheme is effectively meeting its objectives and the objects of the WELS Act 2005 to conserve water supplies, provide information for purchasers of water-using and water-saving products, and promote the adoption of efficient and effective water-using and water-saving technologies. There is broad agreement that the objectives of the WELS Scheme remain appropriate, and do so into the future. Through delivering on it objectives, the Scheme should continue to deliver the significant benefits to various stakeholders as outlined in Section 6 of this report.

The Review found that the WELS Scheme is likely to have contributed to observed reductions in water consumption, and conservation of water supplies across Australia – which could cumulatively total 2,853 GL of water saved by 2030 (ISF 2014). These water savings as of 2015 could have a potential economic value of up to $1.5 billion. If projections about water savings up to 2030 are correct, the value of future savings could be as high as $3.3 billion.[70] Cumulatively, this means the total economic value of water savings could be as high as $4.8 billion (in 2015 dollars).

Underpinning projections about water savings is the full range of products that are currently covered. There is currently little justification or support for any contraction or expansion to product type – removing products would likely significantly compromise benefits, and expansion appears challenging given its marginal benefits.

Reductions in electricity or gas use also result from reduced water consumption under the WELS Scheme and, in combination, these should continue to deliver financial benefits to consumers – cumulative financial savings to Australian households could be as high as $26.3 billion by 2030 (ISF 2014).

Water savings achieved by the WELS Scheme have likely also played a role in decisions to defer investment in water supply infrastructure and will continue to be used by water utilities and planners

[70] Calculated using a net present value calculation based on ISF 2014 cumulative water savings projections and a 6 per cent discount rate over future years.

in long-term demand forecasting. In addition, use of the Scheme as a point of reference has avoided, and continues to avoid, cost related to regulatory duplication at the state or local government level.

The Review found that cessation of the WELS Scheme is not an appropriate course of action as it does not have the support of stakeholders and would compromise important current and future benefits. Therefore, to ensure the ongoing realisation of these benefits, it is important that the Scheme be retained.

Recommendation 1:

The WELS Scheme should be retained – including retaining unchanged:

1) current objects of the *Water Efficiency Labelling and Standards Act 2005* (Cwlth), and thus objectives of the WELS Scheme
2) current types of products covered by the WELS Scheme
3) WELS Scheme as a discretely publically-visible consumer advisory scheme – including external public branding and marketing.

While this Review recommends that the WELS Scheme be retained, continuing with the current Scheme and not making some modification would ultimately ignore concerns raised by stakeholders and not grasp the opportunities to make improvements where they can be made.

10.2 Creating a more equitable WELS Scheme

The significant benefits that the WELS Scheme provides are distributed amongst a range of stakeholders – including consumers of products, state and territory governments, water utilities, Australian society and others. However, the Reviewer heard major concerns from industry about the equity of current cost-recovery arrangements, arguing that the current 80:20 split does not appropriately reflect the current distribution of benefits from the Scheme.

The Review found that the main beneficiaries of the WELS Scheme are consumers and society more generally – including indirectly where society avoids costs associated with infrastructure, which should result in less upward pressure on utility bills for all water consumers. Governments, especially state and local government, also receive a large share of the benefits through the ability to use the Scheme as a reference point on which to base other schemes, regulations, policies and decisions about water management. While some industry sectors may benefit from marketing and associated benefits, industry generally appears to receive relatively less benefit from the Scheme.

Despite this distribution of benefits, under current cost-recovery arrangements governments only pay a small share of overall direct costs of the WELS Scheme and consumers pay no upfront costs (although costs are largely passed on to consumers). At the same time, industry (at least initially) bears the majority of the direct financial costs of the Scheme. While it was found that current registration fees are unlikely to be restricting registrants from accessing the market, it is clear that the current 80 per cent private (industry): 20 per cent public (government) cost-recovery split is unlikely to be equitable or appropriate given the nature and distribution of benefits provided by the Scheme.

Based on the Reviewer's assessment of the estimated distribution of benefits (e.g. in Section 6.4) and current imposition of costs (Section 7), and consulting literature of the subject (Deloitte 2011 and Australian Government 2014b), a 50:50 cost-recovery split appears to be a more equitable cost-recovery target for the future of the WELS Scheme. This is also supported by industry stakeholders consulted by as part of this Review.

Recommendation 2:

The cost-recovery target should be changed to a 50:50 split between industry and all Australian governments – with the proportional split between the Commonwealth Government and state and territory governments remaining equal, at 25 per cent each.

While introduction of a 50:50 cost-recovery target would be more equitable based on benefits received, a major concern of moving away from the 80:20 split is that to meet current scheme expenditure ($1.44 million per annum), the dollar value contribution from all Australian governments would need to rise. As a result of this and other factors, further modifications are suggested that should contribute to reducing the overall cost-base of the WELS Scheme. These measures will not only help to facilitate introduction of a 50:50 split, but should also make the Scheme more effective and efficient.

10.3 Creating a more effective and efficient WELS Scheme

10.3.1 Improving effectiveness

The Review found that the broad design of the WELS Scheme remains appropriate and that administering the Scheme at a Commonwealth Government level is the most appropriate and effective solution to achieving indented objectives. However, a number of opportunities for improvement were highlighted in assessment of the Scheme's effectiveness.

While current compliance and enforcement arrangements appear to be effective in achieving high levels of compliance, there are concerns about whether:

- current arrangements are likely to be appropriate or effective in addressing emerging compliance challenges (such as direct import of non-registered products)
- current compliance and enforcement is proportionate to the risks presented by non-compliance
- the level of current investment in this area is efficient and sustainable to achieve the desired outcomes
- the level of indirect cost that compliance requirements place on industry are appropriate.

As a result of these factors, the Reviewer formed the view that a risk-based compliance and enforcement framework has the potential to reduce costs for all parties and improve the cost-effectiveness of those actions that are undertaken, without compromising the objectives of the WELS Scheme.

Recommendation 3:

Compliance and enforcement activities for the WELS Scheme should move to a risk-based approach. This should include:

1) development of a risk-based compliance and enforcement framework (developed in consultation with industry)

2) improved education, assistance, support and advice for industry to enable stakeholders to meet their legal obligations under the WELS Act 2005, without the need to escalate costly enforcement actions.

The Review also found scope to improve the effectiveness of the current approach to stakeholder engagement. While evidence suggests that WELSOG operates relatively effectively and there are only minor opportunities for improvement, there appears to be no strong justification for WELSAG to convene on a regular (scheduled) basis.

The introduction of stakeholder forums to explain material changes about the WELS Scheme to a broader audience appears to be a more effective mechanism to engage with those stakeholders that have potentially not been captured in the past by either WELSAG or WELSOG. In order to minimise costs and ensure such approaches are effective, utilising appropriate technologies (such as online webinar or streaming, or tele and video conferences) could enable engagement with more stakeholders than might be the case with more traditional formats.

To ensure all WELS Scheme stakeholders are effectively represented and have the opportunity to have valued input, the Reviewer believes engagement mechanisms and processes should be modified.

Recommendation 4:

Stakeholder engagement processes for the WELS Scheme should be modified, including to:

3) only convene the Water Efficiency Labelling and Standards Advisory Group (WELSAG) to advise on the five yearly independent review cycle, or for other specific tasks – such as proposed material changes to the WELS Scheme

4) establish a regular program of stakeholder forums with the purpose of explaining important changes to the operation and administration of the WELS Scheme. These should wherever possible use more innovative and lower cost approaches such as webinars, tele or video conferences or other online forums

5) improve the management of the Water Efficiency Labelling and Standards Officials' Group (WELSOG) – including ensuring meetings are held at appropriate frequency, more effective communication with and between WELSOG members, and reporting to Ministerial Council is consistent and timely.

10.3.2 Improving efficiency

The Review found that the total direct financial cost of the WELS Scheme appeared to be broadly appropriate given its national coverage and substantial benefits derived. The Scheme achieves water saving outcomes at significantly lower cost than supply augmentation measures. However, there are likely still opportunities to reduce costs associated with improved operation or administration of the Scheme. Such opportunities have the potential to reduce costs to both industry and government.

Any full mergers of the WELS Scheme with other related schemes were found inappropriate given the likely complexities and costs, and potential loss of benefits. However, there appears to be little

justification for two very similar schemes (the WELS Scheme and E3 Program) being located in separate Commonwealth Government departments. Efficiencies that could be gained by merging the back office administration of both the WELS Scheme and E3 Program warrant further investigation.

A rationalisation through co-locating the administration of both schemes in the same department should not include merging or changing the substantive public facing component (labelling) of either scheme. Doing so could compromise the public recognition and use of both schemes, and in turn potentially undermine the expected outcomes (water savings, consumer financial benefits, greenhouse gas emissions abatement etc.).

In addition to the above changes which would reduce the cost-base of the WELS Scheme overall, the Department could take additional steps in other areas, including to:

- Outsource application and registration arrangements to a third-party or third-parties (potentially to CABs as is currently the case under the WaterMark Scheme). This would likely reduce the direct financial costs of the WELS Scheme; however, costs changes for registrants may depend on the pricing schedules developed by the third-party(ies).
- Work with state and territory consumer affairs departments or similar agencies that regularly undertake local compliance monitoring. This could contribute to lowering the cost and increasing the effectiveness of compliance and enforcement.
- Develop a combined check testing program for whitegoods that leverages the E3 Program's established check testing program. This appears to be a relatively straightforward way to deliver improved compliance and enforcement at lower cost.

In line with the above, the Reviewer suggests further investigation of the feasibility of implementing a number of measures aimed at improving efficiency.

Recommendation 5:

The Department should assess the feasibility of additional administrative and procedural changes to reduce costs and improve WELS Scheme operation, including:

1) WELS Scheme and E3 Program being administered under the same Commonwealth Government department, while retaining separate legislative underpinnings and branding
2) outsourcing the collection of registration fees, assessment of applications for registration under the WELS Scheme, and entry into and maintenance of the WELS Scheme Product Database to the Conformity Assessment Body (CAB) system
3) establishing a cooperative compliance program with all Australian states and territories consumer affairs departments (or similar)
4) a joint check testing and compliance program with the E3 Program for relevant whitegoods covered under both schemes.

10.4 Reducing regulatory burden for industry

While it was found that the regulatory burden imposed by the WELS Scheme on product registrants has reduced in recent years and is now broadly acceptable, opportunities to further reduce this burden exist.

Streamlined registration processes

The indirect cost most often cited by industry stakeholders involved in product registration is the time taken to register new products with the WELS Scheme on an annual basis. This is compounded by the need (for some registrants) to undertake two separate processes for products covered under two schemes (such as the WELS Scheme and WaterMark Scheme or E3 Program).

Developing a common portal with a unified registration process for products covered by more than one related scheme could reduce direct and indirect costs on industry, as well as administrative costs for government, and reduce the overall regulatory burden and costs on stakeholders of all schemes.

Recommendation 6:

A unified single product registration process should be adopted for the WELS Scheme and the E3 Program (for whitegoods) and the WELS Scheme and WaterMark Scheme (for plumbing products) – comprising common documentation for registration of common products.

While implementation of a common portal with a unified registration process would contribute much to reducing the regulatory burden on industry, it should also be noted that other measures recommended above also contribute to reducing the negative impacts or burden of the WELS Scheme – including a more equitable cost-recovery target, more appropriate compliance and enforcement arrangements, and measures that will reduce the overall cost-base and lead to lower direct financial costs.

Product registration periods

A five year product registration cycle has merits based on potential benefits to industry and cost savings for government, but it is important to carefully consider the upfront costs for industry and cash flow risks for government as a result of pursuing such a change. The Review found that the likely upfront financial impacts on participants of implementing a five year cycle were too high to be accepted by industry and be ultimately implementable.

However, further stabilisation of the WELS Scheme and firming of long-term data on product registration trends should allow consideration of this aspect over coming years. On this basis, it is hoped that as the Scheme matures and the series of modifications found beneficial by this Review are implemented, it will be possible to revisit the prospect of a five year registration cycle before the next independent review scheduled for 2020.

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Appendix A – Terms of reference

Introduction

An independent review of the operation of the Water Efficiency Labelling and Standards (WELS) scheme is required, consistent with Section 76 of the Water Efficiency Labelling and Standards Act 2005 (Cwlth) (the WELS Act).

WELS is Australia's water efficiency labelling scheme that requires certain products to be registered and labelled with their water efficiency in accordance with the standard set under the WELS Act. The WELS Act is supported by complementary legislation in all States and Territories and is administered by the Commonwealth on behalf of all Australian Governments.

The Regulator is established by the WELS Act and is responsible for the administration of the WELS Scheme.

Products currently requiring registration are:

- showers
- tap equipment over a basin (excluding bath and shower taps)
- flow controllers
- toilet (lavatory) equipment
- urinal equipment
- clothes washing machines
- dishwashers

The objectives of the review are to:

Review the appropriateness, efficiency and effectiveness of the scheme and the extent to which its administration has met the objects of the WELS Act.

Identify opportunities to improve and streamline consumer water efficiency information, including reducing regulatory compliance costs for business and the community.

To achieve its objectives, the review will include examination of:

- The performance of the current scheme in meeting the objects of the WELS Act.
- The water and energy savings and other environmental benefits attributable to the scheme, including the impacts on water availability for agriculture, the environment and other non-urban uses.
- How the scheme is used by consumers, industry and regulators and the interactions with other regulatory arrangements including WaterMark and the Equipment Energy Efficiency (E3) scheme.
- The cumulative regulatory impacts and costs of the current scheme and other regulatory arrangements on industry and consumers.

- The appropriateness of the current cost recovery arrangements and their impact on business and the community.
- The appropriateness of the range of products currently covered by the scheme.
- The appropriateness of current mechanisms for industry engagement on the administration of the scheme.
- Alternative models for the provision of consumer water efficiency information and administration of the scheme, including international examples and the risks and benefits of alternative models.

Appendix B – Discussion paper questions

The discussion paper invited comment from stakeholders on the questions listed below.

Comments are sought on the appropriateness and performance of the Scheme against the three objects of the *Water Efficiency Labelling and Standards Act 2005*. For example:

1) Do the objects of the WELS Act 2005 remain appropriate?
2) What evidence exists that the Scheme directly or indirectly conserves water resources?
3) Does the Scheme provide effective information about the water efficiency of water-using products?
4) What evidence exists that the Scheme promotes use of water-efficient technologies?

Comments are sought on the Scheme's use by industry, consumer, government or other stakeholder groups. For example:

1) Does the discussion above accurately reflect stakeholder use of the Scheme? Are there other major users or other types of use?
2) Has use of the Scheme changed since the Scheme's inception? If so, how and for what reasons?
3) To what extent does the Scheme continue to be used as an eligibility requirement for other rebate or subsidy programs? If so, for what purpose? Does this use contribute to meeting the objectives of the Scheme?

Comments are sought on the outcomes and benefits of the Scheme to date, and potential benefits in the future. For example:

1) Are the potential benefits and outcomes of the Scheme highlighted above accurate? What other potential benefits exist?
2) What have been the whole of society outcomes and benefits, as distinct from those accruing directly to industry, consumers and government individually?
3) What impact has the Scheme had for water availability for agriculture, the environment or other non-urban uses?
4) What impact has the Scheme had on decisions to invest in water supply infrastructure?

Comments are sought on the potential to achieve efficiency gains through improved linkages or interactions between schemes, or how overlaps could be managed to reduce duplication or burdens on industry or government. For example:

1) In what further ways does the Scheme interact with other schemes, programs or regulations (nationally or at the state level) not mentioned here?
2) Do interactions, crossovers, or overlaps between schemes create confusion or unnecessary burden for industry or consumers? Is the WELS Scheme clearly defined?

3) How could interactions between the Scheme and other similar national schemes (such as WaterMark and E3) be improved? What benefits would this provide, and to whom?

4) Would it be appropriate for the Scheme to merge with or take over the WaterMark certification process? What benefits or costs would this create, and for whom?

5) Would it be appropriate for the Scheme to remove WaterMark requirements from registration arrangements? What impact would this have on industry and the ability for the Scheme to meet its objectives?

6) Do other schemes and programs offer opportunities or lessons that could be reflected in administration of the Scheme?

Comments are sought on the nature and extent of regulatory impact of the Scheme, and the appropriateness and distribution of regulatory costs. For example:

1) What direct or indirect impacts or costs are borne by industry as a result of the Scheme? What information is available to quantify these?

2) Are these costs appropriate, given the public or private benefits provided by the Scheme?

3) What opportunities exist to reduce regulatory burden and costs without compromising the outcomes and benefits of the Scheme?

4) Does the Scheme provide incentives or impediments to competition or innovation in the markets for relevant water-using products?

5) Can you comment on the degree to which industry supports the current Scheme?

Comments are sought on the appropriateness and efficiency of current cost-recovery arrangements. For example:

1) Is the 80 per cent cost-recovery target appropriate? Is there a more appropriate and equitable approach to ensure successful ongoing operation of the Scheme?

2) What impacts (positive or negative) have occurred as a result of changes introduced by the Water Efficiency Labelling and Standards (Registration Fees) Act 2013? Are the current fee structures for different entities or products equitable?

3) Do current cost-recovery arrangements impact on industry competitiveness or innovation? What information is available to substantiate this?

4) How do Scheme costs impact consumers? Are they passed through in the form of increased prices?

Comments are sought on the appropriateness of current product coverage. For example:

1) Is the current suite of products covered under the Scheme appropriate? Are there products not covered under the Scheme that should be, or products that should be removed?

2) What impacts would likely result from water efficiency ratings being replaced by minimum water efficiency standards for different products? Would this compromise the Scheme's outcomes?

3) Is it appropriate that second-hand water-using products and various other products imported for personal use only not be covered under the Scheme?

Comments are sought on the effectiveness of industry engagement in the Scheme to date. For example:

1) Has industry engagement in the Scheme in the design and administration of the Scheme been adequate?
2) Has the establishment of WELSAG improved industry engagement and involvement in Scheme design and administration? Does WELSAG provide an effective means of representing industry views to the Scheme's Regulator?
3) Are there any other improvements that could be made regarding industry engagement with the Scheme? For example, would further stakeholder forums such as those held in 2012 be beneficial?

Comments are sought on possible future directions for or changes to the Scheme. For example:

1) Is the Scheme still necessary, and what would be the consequences if the Scheme ceased to exist?
2) Would other government or industry led Schemes develop in its place? Would these be more or less efficient or effective?
3) Are there other schemes in Australia or internationally that offer lessons or guidance for the future of the Scheme?
4) What could an alternative Scheme model look like, and how would its costs or benefits compare to the current model?

Appendix C – Stakeholder consultation details

In-person and telephone stakeholder meetings undertaken for the Review are listed as follows:

Canberra – Tuesday 9 December 2014

Water Efficiency Labelling and Standards Advisory Group (WELSAG) – including representatives from:

- GWA Bathrooms and Kitchens/Institute for Sustainable Futures
- Consumer Utilities Advocacy Centre
- Australian Building Codes Board (ABCB)
- Con-Serv Corporation Australia
- Electrolux Home Products
- Plumbing Products Industry Group
- Plumbing Industry Climate Action Centre (PICAC)
- Office of the Small Business Commissioner
- Consumer Electronics Suppliers' Association (CESA)
- Property Council of Australia
- Water Services Association of Australia (WSAA)
- Commonwealth Department of the Environment

Sydney – Wednesday 10 December 2014

- CHOICE
- Water Services Association of Australia (WSAA)

Perth – Thursday 11 December 2014

- Western Australian Department of Water
- Mania Group Australia
- Plumbing Products Industry Group

Brisbane – Monday 15 December 2014

- Queensland Department of Energy and Water Supply
- Ramtaps Pty Ltd
- Con-Serv Corporation Australia
- SAI Global

Melbourne – Tuesday 16 December 2014

- Reece Pty Ltd
- Plumbing Industry Climate Action Centre (PICAC)
- Harper's Bathroom
- Consumer Utilities Advocacy Centre (CUAC)
- Victorian Department of Environment and Primary Industries
- IAPMO R&T Oceana

Canberra – Wednesday 17 December 2014

- Australian Building Codes Board (WaterMark)

Melbourne – Friday 19 December 2014

- Commonwealth Department of Industry and Science
- Bunnings Group Limited

Melbourne – Monday 2 February 2015

- Victorian Building Authority

Teleconference – Tuesday 3 February 2015

- New South Wales Department of Primary Industry

Teleconference – Wednesday 4 February 2015

- Australian Capital Territory Environment and Planning Directorate
- Kinetic Group

Teleconference – Tuesday 10 February 2015

- Bosch and Siemens Home Appliances Pty Ltd

Teleconference – Wednesday 11 February 2015

- Tasmanian Department of Primary Industries, Parks, Water and Environment

Canberra – Friday 13 February 2015

- Office of the Australian Small Business Commissioner
- Commonwealth Department of Industry and Science, Appliance Energy Efficiency Branch (E3 Program)

Public written submissions received for the Review are listed as follows:

- Australian Industry Group (AIG)
- Australian Water Association (AWA)

- Azzurra Bathroom Furniture
- City West Water
- Commonwealth Department of Industry and Science
- Consumer Electronics Suppliers Association (CESA)
- Gro Agencies Pty Ltd
- Harper's Bathroom
- Hunter Water Corporation
- Master Plumbers' Association of Queensland
- Master Plumbers and Gasfitters Association of WA
- Master Plumbers and Mechanical Services Association of Australia
- Office of the Australian Small Business Commissioner
- Plumbing Merchants Association
- Plumbing Products Industry Group
- Southcape Tapware
- Southern Plumbing Supplies Pty Ltd
- Swan Plumbing Supplies
- Townsville City Council
- Victorian Building Authority (VBA)
- Water Services Association of Australia (WSAA)
- Western Australian Department of Water

Appendix D – Determination of a WELS product

According to Section 6 of the Water Efficiency Labelling and Standards Determination 2013 (No. 2),[71] a water-use product or water-saving product of any of the following kinds is a WELS product:

- tap equipment that is for use over a fixed basin, sink or laundry tub, other than:
  - that for use exclusively over a bath or spa
  - thermostatic taps
  - bidet taps
  - taps that are part of an appliance (such as a chilled or boiling water dispenser)
- fixed showers that are for use exclusively for personal bathing, other than:
  - emergency deluge showers
  - safety showers
- electric dishwashing machines that are intended for household use
- electric clothes washing machines that are intended for household use, including such machines that are:
  - cold wash only
  - combination clothes washing machine dryers
- lavatory equipment that uses water, including toilets, cisterns, pans and associated flushing devices
- urinal equipment that use water, including associated flushing devices
- flow controllers that are:
  - for use in a product that is a WELS product under any of paragraphs (a) to (d)
  - offered for supply separately from the product (whether or not they are also offered for supply as a component of the product).

[71] Please note that at time of writing amendments made to the Water Efficiency Labelling and Standards Determination 2013 (No. 2) by the Water Efficiency Labelling and Standards (No. 2) Amendment Determination 2015 (No. 1) were unincorporated.

Appendix E – List of associated legislation and regulations

Water Efficiency Labelling and Standards Act 2005 (Cwlth).

Water Efficiency Labelling and Standards (Registrations Fees) Act 2013 (Cwlth).

The Water Efficiency Labelling and Standards Regulations 2005 (Cwlth).

Water Efficiency Labelling and Standards Declaration 2005 (Cwlth).

Water Efficiency Labelling and Standards Determination 2013 (No. 2) (Cwlth).

Water Efficiency Labelling and Standards(Registration Fees) Determination 2013 (Cwlth).

Water Efficiency Labelling and Standards (No. 2) Amendment Determination 2015 (No. 1) (Cwlth).

Water Efficiency Labelling and Standards (Registration Fees) Amendment Determination 2015 (No. 1) (Cwlth).

Water Efficiency Labelling and Standards Act 2005 (ACT).

Water Efficiency Labelling and Standards (New South Wales) Act 2005 (NSW).

Water Efficiency Labelling and Standards Act 2006 (NT).

Water Efficiency Labelling and Standards Act 2005 (Qld).

Water Efficiency Labelling and Standards Act 2006 (SA).

Water Efficiency Labelling and Standards Act 2005 (Tas).

Water Efficiency Labelling and Standards Act 2005 (Vic).

Water Efficiency Labelling and Standards Act 2006 (WA).

Australian and New Zealand Standard AS/NZS6400:2005 Water-efficient products—Rating and labelling.

Australian and New Zealand Standard 3662:2005 - Performance of showers for bathing.

Australian and New Zealand Standard 3718:2005 - Water supply-Tap ware.

Australian Standard 5200.037.2-2008 - Plumbing and drainage products, Part 037.2: Flow controllers for use with heated or cold water systems.

Australian Standard 1172.1-2005 - Water closets (WC), Part 1: Pans.

Australian Standard 1172.2-1999 - Water closet (WC) pans of 6/3 L capacity or proven equivalent, Part 2: Cistern.

Australian Technical Specification 5200.021-2004 - Technical Specification for plumbing and drainage products, Part 021: Flushing valves for water closets and urinals-For use with break tank supply.

Australian Technical Specification 5200.020-2004 - Technical Specification for plumbing and drainage products, Part 020: Flushing valves for water closets and urinals-For use with mains supply.

Australian Technical Specification 5200.030-2007 - Technical Specification for plumbing and drainage products, Part 030: Solenoid valves.

Australian and New Zealand Standard 3982:1996 – Urinals.

Australian Technical Specification 5200.004-2005 - Technical Specification for plumbing and drainage products - Urinal flushing cisterns.

Australian and New Zealand Standard 2040.2:2005 - Performance of household electrical appliances-Clothes washing machines, Part 2: Energy labeling requirements.

Australian and New Zealand Standard 2007.2:2005 - Performance of household electrical appliances-Dishwashers, Part 2: Energy labelling requirements.

Appendix F – WELS Scheme registration fees

The following table presents current fees payable under the WELS Scheme for product registration (Table 13). These are the fees that registrants are required to pay for the registration year ending 22 January 2016 (i.e. the registration year at the time that the Review was completed).

Table 13. WELS Scheme registration fees payable for registration year ending 22 January 2016

Tier	Number of products	Fee payable ($)	Tier bridging fee ($)
1	1–5	600	Not applicable
2	6–10	1,100	500
3	11–20	1,700	600
4	21–30	2,500	800
5	31–40	3,300	800
6	41–50	4,100	800
7	51–75	5,600	1,500
8	76–100	7,500	1,900
9	101–150	10,000	2,500
10	151–200	13,000	3,000
11	201–250	16,000	3,000
12	251–300	19,000	3,000
13	301–350	22,000	3,000
14	351–400	25,000	3,000
15	401–450	28,000	3,000
16	451–500	31,000	3,000
17	501–750	37,500	6,500
18	751–1000	52,000	14,500
19	1001–1500	75,000	23,000
20	1501–2000	98,000	23,000
21	2001–4000	121,000	23,000

Source: Australian Government 2015g.

Notes: A bridging fee is charged to registrants when sufficient new products are added throughout a given registration year to breech the product number limit of the current tier. The bridging fee is the difference between the current tier and the new tier. All registration fees are GST exempt.

Appendix G – Comparison of related schemes

Table 14. Comparison of WELS Scheme, WaterMark Scheme, E3 Program and Smart Approved WaterMark

Topic	WELS Scheme	WaterMark Scheme	E3 Program	Smart Approved WaterMark
Administrator	Commonwealth Department of the Environment (DotE)	Australian Building Codes Board (ABCB) (and Commonwealth Department of Industry and Science)	Commonwealth Department of Industry and Science	Unincorporated not-for-profit organisation (hosted by Water Services Association of Australia)
Enacting legislation	*Water Efficiency Labelling and Standards Act 2005*	Not applicable	*Greenhouse and Energy Minimum Standards Act 2012*	Not applicable
Aim and objectives	The Water Efficiency Labelling and Standards (WELS) Scheme requires the mandatory registration and labelling of certain water-using products supplied for use across Australia. The Scheme aims to reduce society's total water consumption by promoting the adoption of more water efficient products and technologies by providing consumers with product specific water efficiency information at the point of supply.	The WaterMark Certification Scheme is a mandatory certification scheme for plumbing and drainage products to ensure that plumbing and drainage materials and products are fit for purpose and appropriately authorised for use in plumbing installations across Australia.	The aim of program is to promote the development and adoption of products that use less energy, produce fewer greenhouse gases and contribute to reducing the amount of energy used, or greenhouse gases produced, than other products. The program does this through encouraging consumers to select products at point of sale that use the least amount of energy and by setting a range of Minimum Energy Performance Standards (MEPS).	The Smart Approved WaterMark Program aims to create an Australia that is aware of, and actively engaged in, the efficient use of water. The program aims to do this by identifying, certifying and promoting innovative products and services that are water efficient, educating consumers on the importance of water conservation, and championing innovative solutions for sustainable water use.

Topic	WELS Scheme	WaterMark Scheme	E3 Program	Smart Approved WaterMark
Product coverage	• showers • tap equipment • flow controllers • toilet (lavatory) equipment • urinal equipment • clothes washing machines • dishwashers.	• appliances and fixtures (air conditioners, dental equipment, water filters etc.) • sanitary fixtures (urinals, toilets etc.) • water-using appliances (icemakers, washing machines, sterilizers, steamer etc.) • water heater and water-heated storage tanks • non-pressurised pipes and fittings • pressurised pipes and fittings • jointing materials • water supply valves and valve accessories.	• fridges and freezers • washing machines • clothes dryers • dishwashing machines • air conditioners • electric and gas water storage heaters • certain lighting equipment, and transformers and converters • televisions and associated consumer electronics • computers (including laptops) and monitors • distribution transformers • three-phase electric motors • refrigerated display cabinets • close control air conditioners • commercial chillers • swimming pool pumps (voluntary).	Covers the certification for all outdoor products/services. Examples include: • spray cleaner • commercial glass washers • irrigation equipment • mulches • plant pots • pool covers • soil amendments.
Revenue generation model	Partial cost-recovery where scheme registrants are charged a fee for registration, and state, territory and Commonwealth Governments contribute remaining revenue requirements.	Registrants pay Conformity Assessment Bodies (CABs) for WaterMark Certification, and CABs pass a 4 per cent royalty fee onto ABCB to partially cover costs associated with the WaterMark Product Register. Remaining revenue requirements are covered by the ABCB.	Partial cost-recovery where scheme registrants are charged a fee for registration, and state, territory and Commonwealth Governments contribute remaining revenue requirements.	The program is not-for-profit and was founded through funding from the Water Smart Australia program. It receives revenue from fees from the application and certification process.
Number of products	Approximately 20,000 products	Between 45,000 and 65,000 products	Unknown	Unknown

Topic	WELS Scheme	WaterMark Scheme	E3 Program	Smart Approved WaterMark
Length of registration	1 year	Lifetime or 1 year dependent on product	5 years	2 years (with option for renewal)
Voluntary or mandatory	Mandatory	Mandatory	Mandatory	Voluntary
Point of enforcement	Point of sale	Point of installation	Point of sale	Point of sale, and point of product or service development
Compliance and enforcement	The DotE manages the WELS scheme in accordance with its Compliance and Enforcement Policy (2009). This includes promotion of self- regulation via education and communication to encourage compliance. Additionally the DotE can run compliance audits and check testing and pursue a graded range of actions for non- compliance under the WELS Act 2005, such as: • issuing infringement notices • applying pecuniary penalties • seeking injunctions • seeking criminal prosecution • initiating civil litigation • or, cancelling or suspending registration.	While the ABCB manages and administers the WaterMark scheme, the Joint Accreditation System of Australian and New Zealand (JAS-ANZ) authorizes the CABs. The CABs monitor supplier compliance and state and territory inspectors check plumber compliance. ABCB may also check test products and remove accreditation from CABs.	Compliance and enforcement of the E3 Program is the responsibility of the E3 Committee comprised of Commonwealth, state and territory Government agencies and New Zealand Government representatives, the committee is chaired by an officer of the Department of Industry and Science. The E3 Committee promotes compliance through clear guidance on requirements and provides a forum for the exchange of ideas. Additionally it runs check tests and in-store surveys on labelling and registration compliance.	Product applications are assessed by the program's independent Technical Expert Panel who assess the application and reserve the right to approve product and license the use of the Smart Approved WaterMark logo.

Source: Australian Government 2015g, Smart Approved WaterMark 2015, Australian Government 2015c, and ABCB 2015.

Appendix H – Review of international water efficiency labelling schemes

New Zealand – Water Efficiency Labelling Scheme

The New Zealand Water Efficiency Labelling Scheme became mandatory on 1 April 2011 (with all stock requiring labelling from 1 April 2013) (Ministry for the Environment 2015). The New Zealand Scheme is based on the same standard as the Australian WELS Scheme (AS/NZS 6400), mirrors much of the administrative arrangements, relies on the Australian Scheme for registration of products (as there is no such process in New Zealand) and uses the same labels that are used under the Australian Scheme. The Australia-New Zealand Trans-Tasman Mutual Recognition Arrangement (TTMRA) enables the unrestricted flow of WELS products between both nations (Ministry for the Environment 2015).

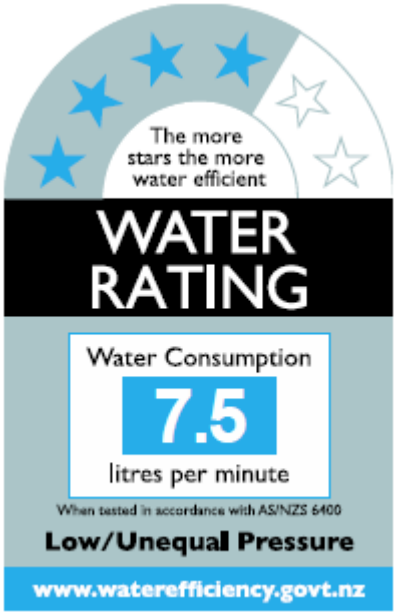
The following products are required to be registered with the New Zealand Water Efficiency Labelling Scheme:

- clothes washing machines
- dishwashers
- lavatories
- showers
- taps
- urinals.

The notable exception compared to the Australian WELS Scheme is the absence of flow controllers under the New Zealand Scheme.

The New Zealand Scheme uses a very similar label to that used under the Australian WELS Scheme (Figure 30).

Figure 30. New Zealand Water Efficiency Labelling Scheme label



Source: Ministry for the Environment 2015.

One other major point of difference is that the New Zealand Commerce Commission is responsible for enforcing the scheme (through the *Consumer Information Standard Regulations under the Fair Trading Act 1986* and the WELS regulations), rather than the government department responsible for the environment (as is the case in Australia) (Ministry for the Environment 2015).

Singapore – Water Efficiency Labelling Scheme

In October 2006, the Singapore Public Utilities Board (PUB) (the statutory board under the Ministry of the Environment and Water Resources – the agency responsible for managing Singapore's water supply, water catchment and sewerage network) and the Singapore Environment Council (an independent charity) introduced a voluntary water efficiency labelling scheme in order to provide information to consumers on the water consumption and efficiency of products and fittings.

The voluntary initiative was part of an umbrella program called the '10-Litre Challenge' aimed at encouraging Singaporeans to reduce their daily water consumption by 10 litres per day. In light of the favourable response to the program, and in an attempt to further encourage the use of water efficient products and fittings, the PUB decided to mandate the labelling scheme.

The PUB enacted the Public Utilities (Water Supply) (Amendment) Regulations 2008, establishing the Mandatory Water Efficiency Labelling Scheme (MWELS) and mandatory installation of dual flush, low capacity cisterns. In addition, all new domestic and non-domestic premises, and existing premises undergoing renovation, were required to install MWELS products and fittings. The MWELS came into effect on 1 July 2009.

The following products are required to conform to mandatory standards set by the PUB for supply, sale and use in Singapore:

- shower taps and mixers
- basin taps and mixers

- sink and bib taps and mixers
- bath and shower taps and mixers (except for concealed ones)
- dual flush, low capacity flushing cisterns
- urinal flush valves and waterless urinals
- clothes washing machines intended for household use (made mandatory on 1 October 2011).

Showerheads remain under a voluntary labelling scheme. Vendors of these products can voluntarily demonstrate that their product meets PUB's water efficiency labelling scheme standards and requirements.

To qualify for the label, the PUB's performance requirements and standards must be met. A testing laboratory or certification body accredited by the Singapore Laboratory Accreditation Scheme, or Singapore Accreditation Council Mutual Recognition Arrangement is required to verify a product's compliance with the standards and requirements. There is no registration fee associated with the MWELS.

All products that fall under the MWELS are required to be labelled for the purposes of supply, sale, offer, display or advertisement. These products are rated on a grading system of zero, one, two or three ticks to reflect the relative water efficiency level of a product (Figure 31).

Figure 31. Singapore Water Efficiency Labelling Scheme label

Source: PUB 2015.

With regards to compliance and monitoring, the PUB conducts regular checks on retailers and suppliers. Failure to comply with the requirements, guidelines and terms and conditions, may see suppliers fined up to a maximum of $10,000 or face imprisonment of a term not exceeding 12 months, or both.

European Union – The Water Label

The European Water Label (EWL) is a voluntary, industry-led water-efficiency scheme aimed at educating consumers on water use, enabling an informed choice to be made at point of sale. The EWL was first introduced in 2007 in the United Kingdom and has now gained some traction in Italy,

Ireland, Turkey, Germany and Spain. Since inception, the EWL has also been embraced by the European Association for Taps and Valves and the European Association for Sanitary Ware.

The EWL is currently owned by the Water Label Company, a privately owned company with sole ownership by the Bathroom Manufacturers Association. The Water Label Company supports the labelling scheme and receives income generated from registrations under the scheme.

The voluntary scheme currently has 66 major brands registered from businesses across Europe and a database of registered products that continues to grow. The EWL covers the following bathroom products:

- toilets
- baths
- taps – including kitchen
- showers – electrics, handsets and valves
- flow regulators
- independent flushing cisterns
- urinal controllers
- replacement toilet flushing devices
- grey water products.

The label shows the amount of water that each product uses (litres per minute). It was designed to be similar with other energy efficiency labels in circulation and to mirror the colours and performance bands found on these labels (Figure 32).

Figure 32. European Water Label

Source: EWL 2015.

The registration for all listed products is for a period of 12 months (providing characteristics of the product are not changed during this time). The enforcement and compliance with the EWL's requirements relies on participants monitoring the market. Any evidence of non-compliance will warrant investigation by the EWL administrators which may, in the event of repeated separate

instances of non-compliance, lead to expulsion from the EWL scheme or a requirement for third-party test reports or certificates for any new application.

United States – WaterSense

In December 2006, the United States Environmental Protection Agency (EPA) launched the WaterSense program as part of their Sustainable Infrastructure Program. The EPA is authorised to establish such a program under Sections 104 and 140 of the *Clean Water Act 1972* and Section 1442 of the *Safe Drinking Water Act 1974*.

The mission of the WaterSense program is to 'protect the future of the nation's water supply by promoting and enhancing the market for water efficient products and services'. The program also aims to establish public–private partnerships to encourage water conservation among manufacturers, developers and consumers.

The WaterSense program is multifaceted in that it:

- provides information to consumers and businesses on water-efficient, high performing products, homes and practices
- educates consumers on the importance of water efficiency
- ensures water-efficient product performance
- promotes innovation in product development
- holds certification programs for services (i.e. irrigation professionals)
- offers a water efficiency labelling scheme.

With regards to labelling, manufacturers that receive the label from approved and licensed certifying bodies may only share it with retailers, distributors and wholesalers for promotional purposes (Figure 33).

Figure 33. United States WaterSense label

Source: EPA 2015.

There is an initial fee for manufacturers that wish to obtain product certification and certifying bodies monitor label use through annual product surveillance such as retail outlet, facility, warehouse audits and product retesting. The EPA is responsible for compliance monitoring and enforcement.

China – Water Conservation Certificate

The China Water Conservation Certification (CWCC) label is available to a broad range of products (62 different categories in total). Some of these categories include industry (e.g. cooling towers and automatic filters), agriculture (e.g. irrigation equipment) and residential (e.g. taps and showerheads).

Conformity with the CWCC standards is managed by the China Energy Conservation Product Certification Centre. Certification is voluntary and aims to encourage the innovation of more water efficient products while ensuring consumers have information to make more sustainable purchase decisions.

Applicants for the label (see Figure 34) are certified against a set of criteria and products are tested by designated institutions. Once a product has been certified, it is listed by the Department of State Economic and Trade Commission and is given priority in government procurement.

Figure 34. China Water Conservation Certificate

Source: Ecolabel Index 2015.

Appendix I – Modelling assumptions

Assumptions across all scenarios:

- Costs of five yearly legislated independent reviews (2020 and 2025) are not accounted for under third-party suppliers and services costs.
- No future predicted costs are associated with registration fee refunds.
- There are no ongoing Communications Team staff costs (including oncosts).

Business as usual:

- Total number of registered products remains the same as known numbers for 2015.
- Expenditure remains constant at the current (2014–15) $1.44 million expected per annum.
- No changes to current registration fees and projected revenue from industry registration fees remains constant.
- Assumed only 75 per cent of products registered with the WELS Scheme are fee paying.
- State and territory contributions are fixed at $196,000 per annum, and the Commonwealth Government matches this contribution, on the basis of current agreements (contributions are based on 10 per cent each of the approved $1.96 million per annum budget, not the actual $1.44 million).

Scenario 1 – meeting cost-recovery policy target (no growth)

- Total number of registered products remains the same as known numbers for 2015.
- Expenditure remains constant at the current (2014–15) $1.44 million expected per annum.
- Projected revenue from industry registration fees equals a maximum of 80 per cent of total WELS Scheme expenditure, and necessary changes to current fees are made.
- Assumed only 75 per cent of products registered with the WELS Scheme are fee paying.
- State and territory contributions are fixed at a maximum of 10 per cent of WELS Scheme expenditure (assuming expenditure of $1.44 million), and the Commonwealth Government matches this contribution.

Scenario 1 – meeting cost-recovery policy target (growth)

- Total number of registered products in 2016 equals three year average based on known numbers in 2013, 2014 and 2015.
- Total number of registered products from 2017 onwards equals linear growth of 0.25 per cent per annum.
- Expenditure remains constant at the current (2014–15) $1.44 million expected per annum.
- Projected revenue from industry registration fees equals a maximum of 80 per cent of total WELS Scheme expenditure, and necessary changes to current registration fees are made.

- Assumed only 75 per cent of products registered with the WELS Scheme are fee paying.
- State and territory contributions are fixed at a maximum of 10 per cent of WELS Scheme expenditure (assuming expenditure of $1.44 million), and the Commonwealth Government matches this contribution.

Scenario 1 – meeting cost-recovery policy target (contraction)

- Total number of registered products in 2016 equals three year average based on known numbers in 2013, 2014 and 2015.
- Total number of registered products from 2017 onwards equals linear contraction of -0.25 per cent per annum.
- Expenditure remains constant at the current (2014-15) $1.44 million expected per annum.
- Projected revenue from industry registration fees equals a maximum of 80 per cent of total WELS Scheme expenditure, and necessary changes to current fees are made.
- Assumed only 75 per cent of products registered with the WELS Scheme are fee paying.
- State and territory contributions are fixed at a maximum of 10 per cent of WELS Scheme expenditure (assuming expenditure of $1.44 million), and the Commonwealth Government matches this contribution.

Scenario 2 – implementation of full suite of modifications

- Arrangements in 2016 meet the WELS Scheme cost-recovery target of 80:20.
- Total number of registered products in 2016 equals three year average based on known total product numbers in 2013, 2014 and 2015.
- No modifications introduced under this scenario are implemented until 2017 registration year (starting January 2017).
- Total number of products registered with the WELS Scheme from 2017 to 2021 equals total number registered in the previous year plus new products registered in the current year (which assuming a 15 per cent turnover is equal to 15 per cent of total products registered in the previous year).[72]
- Total number of products registered with the WELS Scheme from 2022 onwards equals total number registered in the previous year plus new products in the current year – which assuming a 15 per cent turnover equals 15 per cent of total products registered in the previous year, plus 25 per cent of new products registered five years prior, because they have not turned over and are renewed for another five year period – minus the number of new products registered five years prior (due to the expiry of the initial five year registration).
- It is assumed only 75 per cent of products registered with the WELS Scheme are fee paying.

[72] While the Department assumes that the rate of product turnover is 10 per cent, a 15 per cent turnover is used here as a 'best case' scenario based on industry consultation.

- From 2018 onwards WELS Scheme expenditure is expected to be $880,000.
- There is no change in 2017 from 2016 cost for Registration Team (including oncosts) based on need to register over 20,000 new products with the WELS Scheme in 2017.
- A reduction from 2.783 FTE (in 2017) to 2 FTE (in 2018 and onwards) for Registration Team staff costs (including oncosts) is based on ongoing need to register less than 6,000 new products with the WELS Scheme per annum (assuming 15 per cent product turnover).
- A reduction from 2.983 FTE (in 2016) to 2 FTE (in 2017 and onwards) for Compliance Team staff costs (including oncosts) is based on introduction of risk-based compliance and enforcement policy.
- From 2017 onwards 50 per cent reduction in non-staff compliance costs is based on introduction of risk-based compliance and enforcement policy and reductions in Compliance Team FTEs.
- A reduction from 3.083 FTE (in 2016) to 2 FTE (in 2017 and onwards) for Policy Team staff costs (including oncosts) is based on reduced need for policy development.
- Projected revenue from industry registration fees from 2017 onwards is based on maximum of 50 per cent of projected total expenditure.
- State and territory contributions are based on maximum of 25 per cent of projected total expenditure.
- Commonwealth Government contributions are based on maximum of 25 per cent of projected total expenditure.

Scenario 3 – introduction of full suite of modifications without cost-base reduction

- Arrangements in 2016 meet the WELS Scheme cost-recovery target of 80:20.
- Total number of registered products in 2016 equals three year average based on known total product numbers in 2013, 2014 and 2015.
- No modifications introduced under this scenario are implemented until 2017 registration year (starting January 2017).
- Total number of products registered with the WELS Scheme from 2017 to 2021 equals total number registered in the previous year plus new products registered in the current year (which assuming a 13.5 per cent turnover is equal to 13.5 per cent of total number registered in the previous year).[73]
- Total number of products registered with the WELS Scheme from 2022 onwards equals total number registered in the previous year plus new products registered in the current year – which assuming a 13.5 per cent turnover is equal to 13.5 per cent of total number registered in the previous year plus 32.5 per cent of new products registered five years prior, because they have

[73] While the Department assumes that the rate of product turnover is 10 per cent, a 13.5 per cent turnover is used here as a midpoint between that estimated by the Department and that assumed based on industry consultation.

not turned over and are renewed for another five year period – minus the number of new products registered five years prior (due to the expiry of the initial five year registration).

- It is assumed only 75 per cent of products registered with the WELS Scheme are fee paying.
- No cost reductions are expected to be made from known 2015 costs and WELS Scheme expenditure is expected to remain at $1.44 million.
- Projected revenue from industry registration fees from 2017 onwards is based on maximum of 50 per cent of projected total expenditure.
- State and territory contributions are based on a maximum of 25 per cent of projected total expenditure.
- Commonwealth Government contributions are based on a maximum of 25 per cent of projected total expenditure.

Scenario 4 – least degree of change

- Arrangements in 2016 meet the WELS Scheme cost-recovery target of 80:20.
- Total number of registered products in 2016 equals three year average based on known total product numbers in 2013, 2014 and 2015.
- No modifications introduced under this scenario are implemented until 2017 registration year (starting January 2017).
- Total number of products registered with the WELS Scheme from 2017 to 2021 equals total number registered in the previous year plus new products registered in the current year (which assuming a 10 per cent turnover is equal to 10 per cent of total number registered in the previous year).[74]
- Total number of products registered with the WELS Scheme from 2022 onwards equals total number registered in the previous year plus new products registered in the current year – which assuming a 10 per cent turnover equals 10 per cent of total number registered in the previous year, plus 50 per cent of new products registered five years prior because they have not turned over and are renewed for another five year period – minus the number of new products registered five years prior (due to the expiry of the initial five year registration).
- It is assumed only 75 per cent of products registered with the WELS Scheme are fee paying.
- No cost reductions are expected to be made from known 2015 costs and WELS Scheme expenditure is expected to remain at $1.44 million.
- Projected revenue from industry registration fees from 2017 onwards is based on maximum of 80 per cent of projected total expenditure.
- State and territory contributions are based on maximum of 10 per cent of projected total expenditure.

[74] Unlike the previous scenarios tested, the Department's estimated rate of product turnover of 10 per cent is used for this scenario.

- Commonwealth Government contributions are based on maximum of 10 per cent of projected total expenditure.

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